# ETHICS IN PROGRESS

# 15/2

Ethics in Progress

Vol 15, No 2. 2024.
Peer-reviewed online journal.
A multidisciplinary forum for research bridging between academic ethics and social practice.

# EDITORIAL TEAM

# Vol. 15 (2024) No. 2

## Nature and Spirit:

## Enduring Legacies of Hegel's Philosophy from the Jena Period

## Table of contents:

*Ethics in Progress* (ISSN 2084-9257). Vol. 15 (2024). No. 2,
Art. #1, pp. 4-13. DOI:10.14746/eip.2024.2.1


# *Why Turn to Hegel Today? An Introduction*

Giulia Battistoni

(Università degli Studi di Verona, Verona, Italy; giulia.battistoni@univr.it)
ORCID: 0000-0002-5391-8590

**Abstract:** This brief introduction sets the stage for the central aim of this issue of *Ethics in Progress* devoted to Hegel: to underscore the enduring relevance of his thought, in particular his Philosophy of Nature and his *Realphilosophie*, in addressing contemporary challenges. While Hegel may appear to some as an abstract thinker, seemingly surpassed by the demands of our era, the core elements of his philosophy – particularly the dialectical method, his reflections on the complex relationship between *Natur* (nature) and *Geist* (spirit), and key concepts such as *Anerkennung* (recognition) and *Wille* (will) – continue to provide a vital conceptual framework for addressing pressing issues of our time. These include the environmental crisis and the evolving dynamics between humanity, nature, and emerging technologies like artificial intelligence. Consequently, this issue strives to approach Hegel through the lens of our contemporary experience, not to distort or "denaturalize" his thought, nor to fall into the trap of anachronism, but to *breathe new life into the concept*. By doing so, it invites the reader to listen anew to what Hegel's philosophy might still teach us today.

**Keywords:** Hegel; Philosophy of Nature; Realphilosophie; environmental crisis; artificial intelligence.

This issue of *Ethics in Progress* is grounded in the conviction that engaging with Hegel today remains a meaningful endeavor[1]. Exploring whether Hegel's thought and its extraordinarily rich conceptual framework continue to provide tools for navigating the complexities of the contemporary world requires a delicate balance: drawing on Hegel's profound insights while safeguarding the integrity of their originality and specificity, rather than anachronistically adapting ideas that, in certain respects, inevitably bear the imprint of their historical context. Instead, the objective is to *breathe new life into the concept*, demonstrating how Hegel's philosophy can serve as a dynamic framework for addressing

1 This essay is part of the project *Collective Responsibility towards Nature and Future Generations (ReNa)*, that has received funding from the European Union's Horizon Europe Research and Innovation Programme under the Marie Skłodowska-Curie grant agreement No 101064728, funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Research Executive Agency (REA). Neither the European Union nor the granting authority can be held responsible for them.

some of the most pressing challenges of our time[2], including the environmental crisis and the evolving interplay between humanity, nature, and transformative technologies such as artificial intelligence. We live in an era of profound and delicate transformation – a time of crisis on many fronts, demanding a fundamental reexamination of core categories and relationships, particularly those between humanity and nature, as well as between humans and nonhuman entities.

In light of the considerations outlined above, the contributions in this issue critically examine these very relationships, engaging with them through the lens of Hegel's philosophy. They approach this task, first, by delving into Hegel's Philosophy of Nature from the Jena period (and even beyond), a phase in which he articulated pivotal insights through a critical engagement with the natural sciences of his time. Additionally, they engage with Hegel's *Realphilosophie*, particularly examining the concepts of free will and recognition. It is, in fact, during the Jena period that Hegel begins to articulate the intricate relationship between nature and spirit in a way that lays the groundwork for this foundational aspect of his philosophy (Erle, *infra*; Palombelli, *infra*). On the one hand, Hegel conceives of nature as the "other" of spirit – a necessary stage in spirit's process toward itself and the attainment of absolute knowledge. On the other hand, nature is not simply negated in the process of spirit's self-realization but it continues to play an essential role within the spiritual domain.

It is also in Jena that, through engagement with contemporary biological discoveries, Hegel starts developing a holistic and biological conception of life that transcends a purely mechanistic perspective (Hegel 1975; Hegel 1976).[3] This approach enables him to establish a profound interconnection between life and thought, wherein the biological theories of his time significantly inform the development of his speculative philosophy (Achella, *infra*; Achella 2019).[4] Exploring the relationship between Hegel's Philosophy of Nature and the natural sciences of his time also serves as an opportunity and a starting point to examine its potential for contemporary science, prompting the question of whether Hegel's ideas still hold relevance today (Arredondo, *infra*). Hegel's critique of the scientific approach, which reduces nature to a mere object of manipulation,

2 I myself have used this method to deal with the sensitive topic of resistance, starting with Hegel's philosophy (Battistoni 2022).

3 This was the time of new discoveries in the field of chemistry, physiology and biology, which influenced a dynamic, processual view of nature as nature alive, as a *Weltorganismus* (world-organism). The common most demanding effort of philosophers and scientists of that time thus became understanding life and the processes of the living organism, as well as its growth and the transition from inorganic to organic nature.

4 As is well known, Hegel's Philosophy of Nature was long dismissed as outdated. It experienced a resurgence of interest beginning in the 1970s and 1980s (see, at least, Wandschneider 1982; Breidbach 1982; Horstmann & Petry 1986; Petry 1987; Illetterati 1995; Vieweg 1998, the latter focusing on Hegel's Jenaer Philosophy of Nature) and, more recently, this revival has been marked by studies that focus particularly on Hegel's conception of the living organism and of nature as a living whole, as well as its influences on 20th century biology and philosophies of the organisms like those of Hans Jonas and Alfred N. Whitehead (on this, see at least, Erle 2024; Corti & Schülein 2023; Battistoni 2023b; Franzini Tibaldeo 2009; Jonas 2001).

remains in particular relevant even today and a holistic and dynamic vision of reality, as well as a philosophical understanding of nature in which humanity and nature are deeply interconnected, seems particularly pertinent for tackling contemporary challenges within environmental ethics.[5]

While invoking a philosophy of nature in the present time might appear anachronistic, it is worth recalling that as recently as 1993, Hans Jonas, in a lecture delivered in Munich, lamented a significant shortcoming of 20th century philosophy: it was exactly the absence of a Philosophy of Nature. For Jonas, a Philosophy of Nature – a philosophical biology, to use his own words – capable of overcoming the dualisms entrenched in modernity had to be an essential part of any philosophical system. Although Jonas was critical of and diverged from Hegel in many respects, it is undeniable that his philosophical biology is profoundly idealist in intent and bears roots that are, if not explicitly Hegelian, certainly aligned with Hegelian thought.[6] After all, the philosophy of nature in the 20th century, and even today, finds itself in a "disadvantageous position" remarkably similar to the one Hegel described in his own time (Hegel 2012).

Exploring the relationship between human beings and nature raises fundamental questions about the very nature of the humans themselves (Wilford, Anderson, Loebs, *infra*) as well as their capacity for self-determination and action. This means investigating the conditions that enable free action – conditions that arise even before the formation of the social context and the corresponding normative framework for attributing actions to an agent (Tereshchenko, *infra*). At the same time, it prompts reflection on the specific relationships of recognition and respect to which we are increasingly called in our time – not only toward other human beings but also toward non-human entities, including nature on the one hand, and emerging technologies on the other (Juchniewicz, *infra*). This presents a profound challenge to Hegelian conceptuality, inviting a critical examination of its relevance in addressing these pressing contemporary concerns. Once again, it is the Jena period, and here specifically the *Jenaer Realphilosophie* (Hegel 1969), that provides valuable insights. In this context, the human will is understood as the foundation of individual free action, forming the basis for the mature conception Hegel would later articulate in the *Elements of the Philosophy of Right* (Hegel 1991). Furthermore, in the *Realphilosophie*, the theme of recognition is explored with particular attention to the ethical, normative framework, laying the groundwork for interpretations like that of Axel Honneth, who also questions the meaning of misrecognition (Honneth 1995)[7], and for revisiting the concept of recognition making it applicable to the context of technologies.

Consequently, the contributions presented below represent a significant dialectical

5 In the 20th century, Hans Jonas sought to ground the ethics of responsibility in a philosophical biology (see Jonas 1985; Jonas 2001).

6 I cannot delve into these ideas in depth here, but I have explored them (further in Battistoni 2023a; Battistoni 2023b; Battistoni 2024; see also Jonas 2015).

7 Achella (2024) offers a recent and insightful attempt to examine the contemporary "pathologies of recognition" through the lens of Hegel's philosophy.

effort: they seek to offer tools, rooted in Hegel's philosophy, to critically engage with and challenge the dualisms that continue to shape contemporary thought (such as spirit/human versus nature, and human versus nonhuman). These dualisms underlie the ecological crisis and a problematic relationship with the nonhuman world in general. In the following, the contents of the contributions included in this issue will be briefly presented.

Marco Palombelli's article *Hegel on Human Ways of Considering Nature* investigates the limitations and contradictions of common approaches to understanding nature, drawing on Hegel's Encyclopaedic Philosophy of Nature and Berlin Lectures. Central to this exploration is the relationship between nature and spirit, a theme rooted in Hegel's writings in Jena. Nature, described as the "other" of spirit, plays a pivotal role in spirit's self-realization, ultimately revealing itself as an integral part of this process. Palombelli examines two primary approaches to nature: the practical and the theoretical. The practical approach, driven by the human need to consume nature for survival, reflects a utilitarian and destructive perspective that reduces both nature and humanity to mere biological functions. This external teleology, where humans impose purposes on nature, fails to recognize the intrinsic value of natural processes. The theoretical approach, aligned with empirical sciences of Hegel's time, abstracts from nature's particularities to uncover universal principles. While more advanced, it too manipulates and reduces nature, remaining bound to a fragmented view of reality. To address these shortcomings, Hegel advocates for a speculative, philosophical approach that perceives nature as a living, interconnected whole. This philosophical intuition reveals nature's inner rationality and inherent freedom, overcoming the separation between nature and spirit. By uniting the singular and the universal, thought discovers itself in nature – its apparent "other." Palombelli argues that such a philosophical understanding is particularly urgent in times of crisis, as it allows for the redefinition of humanity's relationship with the environment. Hegel's vision, which synthesizes the practical and theoretical approaches, liberates both nature and spirit from their one-sided constraints. This creates a framework for a harmonious coexistence where the conceptual grasp of nature aligns with its living essence, affirming the relevance of Hegel's ideas in addressing modern ecological and ethical challenges.

Paul Wilford, Nicholas Anderson, and John Loebs' article *The Wonders of the World and the Wonder of Man: Sophocles' Ode to Man in Hegel, Heidegger, and Jonas* also focuses on the human relationship to nature, establishing a productive long-distance dialogue between Hegel's, Heidegger's, and Jonas' interpretations of the "Ode to Man" from Sophocles' *Antigone* as a starting point. The article focuses on how humans perceive, master, and are constrained by nature. It argues that an adequate understanding of nature requires an equally adequate comprehension of the subject that apprehends it – namely, the human being. Hegel criticizes the knowledge model of modern science, which he argues reduces nature to an object of manipulation. For Hegel, a purely practical perspective that

emphasizes human mastery fails to recognize both the intrinsic integrity of natural beings and spirit's emergence from nature. Hegel's speculative philosophy conceives of nature as a living whole, where spirit liberates itself by discovering its essence within nature. Through this process, nature itself is liberated from externality. Consequently, Hegel advocates for a philosophical approach that reconciles spirit and nature. Heidegger's interpretation of the "Ode to Man," presented in *Introduction to Metaphysics*, explores the ground of human existence and the nature of being. Drawing on the Greek tradition, Heidegger emphasizes humanity's "unhomeliness": humans are the "most unhomely" due to their violent attempts to impose *techne* on a resistant *physis*. Jonas, in *The Imperative of Responsibility*, extends Heidegger's critique to the technological excesses of modernity. He argues that modern technology disrupts ethical frameworks and necessitates a new ethics grounded in responsibility. This ethics, according to Jonas, entails recognizing humanity's immense power and its role in preserving nature. Building on a philosophical biology, Jonas advocates for an ethics that values life in itself, acknowledging humanity as both part of and distinct from nature, in which a first kind of freedom and inner teleology is already evident. The "Ode to Man" serves as a bridge between these three thinkers, exposing the limitations of a purely practical or mechanistic approach to nature. Together, they offer complementary insights into the evolving dynamics of humanity's complex relationship with the natural world. Wilford, Anderson, and Loebs conclude their article by reflecting on contemporary neuroscience, contrasting the mechanistic perception of the left brain with the holistic view of the right brain. Drawing on McGilchrist (2019), they suggest that modern alienation and environmental crises stem from an overemphasis on the left brain's perspective at the expense of the integrative capacity of the right brain. By engaging in dialectical thinking, the article seeks to balance these perspectives, integrating insights from Hegel, Heidegger, and Jonas to reimagine humanity's place within the natural whole.

Stefania Achella's article *Life as Paradigm of Knowledge. What Use of Hegel in the Age of the Environmental Crisis?* begins exactly with the given fact that the environmental crisis necessitates a profound rethinking of humanity's relationship with the environment, requiring a move beyond the model of human supremacy. Drawing on Hegel's thought, the author examines how the normativity of organic life, as revealed by the natural sciences of Hegel's time, shaped his speculative philosophy. Achella begins by analyzing the 18$^{th}$-century shift from a physics-based worldview to a biology-centered one. This paradigm shift, exemplified by Newton's idea of oppositional dynamism and Goethe's insight that the principle of knowledge of living beings must be sought in life itself, highlighted the need for a dynamic understanding of life. Achella also argues that this shift deeply influenced Hegel's understanding of reason: for Hegel, reason operates immanently, having its purpose within itself, much like life, which, therefore, becomes a model for understanding reason, bridging scientific and philosophical perspectives. Achella thus emphasizes that Hegel's idealism incorporates life's relational structures into its framework, transcending artificial separations such as subject-object (as explored in the *Phenomenology of Spirit*)

or nature-spirit. Hegel's critique of the methods of the empirical science culminates in a holistic ontology, where nature and spirit are intertwined and mutually constitutive. Achella thus identifies Hegel's philosophy as a form of "living ontology" that evolves with reality, offering a relational framework for addressing the environmental crisis. She also argues that Hegel's thought aligns with feminist ecological approaches by overcoming key dualisms – human and non-human, soul and body, and nature and culture. This non-anthropocentric yet human-sensitive perspective preserves both human specificity and interconnectedness, offering a conceptual foundation for rethinking humanity's place in nature. In this way, Achella positions Hegel's philosophy as a critical resource for developing new relational approaches to environmental thought in the Anthropocene.

Xavier Aranda Arredondo's article *Is a Contemporary Hegelian Philosophy of Nature Possible?* explores the relevance of Hegel's Philosophy of Nature in relation to contemporary philosophy of science. Arredondo begins by emphasizing how Hegel's Philosophy of Nature is inseparable from his broader system, where nature emerges as a manifestation of the Idea (*Idee*), first developed in the Logic section of the *Encyclopaedia of the Philosophical Sciences*. Hegel's system operates through a dialectical structure, with logic as the universal, nature as the particular, and spirit as the singular. These elements interrelate, forming an evolving and unified whole. The author highlights how Hegel's approach addresses dualisms, such as the separation of conceptual schemes and the empirical world. Starting from the *Phenomenology of Spirit*, Arredondo examines Hegel's epistemological premises, including the existence of objects independent of self-consciousness and the identity of thought and reality in a common ground. By analyzing the *Science of Logic*, he argues that Hegel transcends traditional distinctions between *a priori* and *a posteriori*, favoring a position where *immediacy* and *mediation* are part of a dynamic, more neutral framework. Central to the discussion is the demarcation of scientific knowledge: the process of rational reconstruction, mediated by the *Idea*, grounds the possibility of scientific objectivity. The Philosophy of Nature, like Hegel's Logic, does not treat empirical science as absolute but as immediate, showing that its conceptual structure derives from logical mediation. Arredondo then connects Hegel's ideas to contemporary concerns, such as Einstein's critique of reducing reality to quantifiable properties and the challenges quantum physics poses to traditional ontological principles. According to the author, Hegel's *Absolute Idea* provides a framework to integrate the universal and particular, addressing such philosophical tensions. By applying abductive reasoning, Arredondo proposes that Hegel's Philosophy of Nature offers solutions to fundamental issues in the philosophy of science, bridging gaps and inviting dialogue between Hegelian thought and modern scientific inquiry.

Giorgio Erle's article *Natural Becoming: From Bad Infinity Towards an Open Dialectic? Contemporary issues moving from Hegel's Philosophy of Nature* makes use of dialectics to interpret Hegel's Philosophy of Nature as part of his larger system, conceived as a dynamic and interconnected organism. The author first focuses on the relational

roles of time and space. According to Erle, time and space are mutually dependent: time, as a negative, indistinct quality, and space, as a negative, indistinct quantity, remain inert without their interaction. For Hegel, natural time functions as the engine of "bad infinity," a repetitive cycle devoid of determination or diversity. This static ideality is overcome through mediation, where time and space become concrete and are integrated into organic processes, such as metabolism. At this stage, natural becoming develops into a form of subjectivity – though one that cannot achieve self-consciousness, as nature lacks the capacity to narrate itself, remaining an "externality." Erle argues that Hegel's natural processualism provides a framework for an "open dialectic," where the Philosophy of Nature points beyond itself, connecting to broader spiritual and ethical dimensions. Drawing on Hans Jonas, Erle emphasizes that nature's fragility – evident in phenomena such as an animal's struggle for survival and to find food – reveals life's capacity to endure negativity and transform it into mediation. Metabolic processes, for instance, demonstrate how life unifies externality within itself, transforming fragility into strength. Through natural becoming, contradictions give rise to possibilities for renewal, where even failure drives the subject to transcend negativity. Thus, Hegel's Philosophy of Nature remains highly relevant, offering an "open dialectic" that unites nature, ethics, and spirit in a mediated continuity. For both Hegel and Jonas, nature's limitations thus serve as a gateway to spirit, with mortality acquiring profound metaphysical and ethical significance, prompting reflection on the kind of world humans wish to create and sustain, including considerations of environmental responsibility.

Yuliia Tereshchenko's article *Intelligent Will, Causality, and Action in Hegel's Jenaer Realphilosophie 1805/06* explores the foundational role of Hegel's early work in developing his theory of action. As Tereshchenko shows, in the *Jenaer Realphilosophie* the subject with an individual mind uses nature's causality and external objects to actualize its will, demonstrating the capacity for free, intentional action independent of a fully developed social framework. While individual action occurs within social conditions, the author claims it is, in essence, pre-social, rooted in the self-regulating intelligence and will of the subject. Thus, the author contrasts her view with neo-Hegelian interpretations, such as those of Robert Pippin and Katerina Deligiorgi, who emphasize the social determination of agency. Tereshchenko turns instead to John McDowell's argument that agents can understand their own intentions without relying entirely on social practices. This allows for free action grounded in an autonomously formulated reason. Tereshchenko examines Hegel's *Jenaer Realphilosophie*, where intelligence and will are seen as core faculties of the mind. Intelligence is tied to memory and language, while the will ensures control over external reality to satisfy natural needs. Hegel describes the will's process as starting with a drive that expels its content (otherness) and experiences lack, eventually achieving satisfaction by intervening in nature to fulfill its purpose. This progression begins as unconscious activity but evolves into conscious action, where practical intelligence and the will integrate internal and external world. Hegel avoids separating subjective intentions

from objective deeds, since the outward manifestation of the will becomes a subjective-objective reality. Tereshchenko concludes that the development of the individual mind is the foundation for free action. While the moral and ethical dimensions of action eventually require recognition of others, these social elements arise later and are not the essence of action itself.

Natalia Juchniewicz's article *Towards (Unilateral) Recognition of "the Technological Other" – Vulnerability, Resistance and Adequate Regard* examines whether the theory of recognition can be extended to human-technology relationships. Drawing on Hegel and Honneth, the author reconstructs recognition theory as a normative framework centered on building relationships based on mutual respect. For Hegel, recognition is essential for self-development, while Honneth's three dimensions of recognition – love, law, and solidarity – focus on ethical relationships within social structures, grounded in human equality. While Hegel's *Phenomenology of Spirit* emphasizes recognition as part of self-consciousness formation, the ethical life outlined in the *Jenaer Realphilosophie* aligns more closely with the recognition model Honneth explores. Misrecognition, as Honneth notes, also shapes these dynamics, a concept the author finds particularly relevant for technology. The article also questions whether recognition necessarily requires consciousness and explores the possibility of extending recognition to non-human entities like robots. By redefining recognition as the capacity to evoke moral obligations, the author challenges anthropocentric assumptions. Incorporating Nolen Gertz's idea (Gertz 2018) of solidarity with technological artifacts, Juchniewicz notes that such solidarity arises from technology's integration into human roles, fostering emotional bonds through projection. More importantly, she focuses on the concepts of vulnerability and resistance, arguing that technology, despite lacking mortality or embodiment, can still be seen as vulnerable and resistant, thereby eliciting moral responses. Vulnerability, framed as the capacity to provoke ethical action, repositions technology as a moral agent without necessitating personhood. Finally, the article discusses the model of "adequate regard," a form of unilateral recognition where non-human entities, though unaware, influence moral behavior in humans, evoking emotions and ethical obligations. This reimagining of recognition theory highlights a relational model in which human sensitivity and empathy extend beyond humanity. Ultimately, Juchniewicz revitalizes recognition theory, demonstrating its relevance in a technological world where relationships with non-human entities reshape ethical considerations.

In conclusion, the articles in this issue collectively trace a path from Hegel's speculative philosophy of nature and spirit to the challenges of our contemporary world. United by the common effort to look at his thought through the lens of our present, they affirm that the thinker of the dialectical relation between nature and spirit, as well as of the recognizing relation between human beings, continues to offer profound conceptual tools to critically address the pressing questions of our time.

## References


Achella A. 2023. “Patologie del riconoscimento e forme di responsabilità”, in G. Battistoni & G. Erle (Eds.), *Responsabilità, comunità e comunicazione: dalla filosofia moderna all’etica contemporanea*, *Pòlemos. Materiali di filosofia e critica sociale* 1:61–77. http://doi.org/10.48247/P2023-1-004

Achella S. 2019. *Pensare la vita. Saggio su Hegel*. Bologna: il Mulino.

Battistoni G. 2024. “Einsichten für die gegenwärtige Umweltethik: Romantik, Hegel, Jonas”, in M. Lewin (Ed.), *Klassische Deutsche Philosophie: Wege in die Zukunft* (pp. 211–228). Paderborn: Brill/Mentis. http://doi.org/10.30965/9783969753002_012

Battistoni G. 2023a. “A Biocentric Ontology at the Basis of an Anthropocentric Concept of Co-responsibility to Non-human World,” *Filosofia Morale/Moral Philosophy* 2(4):101–110. http://doi.org/10.7413/fmmp0038

Battistoni G. 2023b. “Lebensprozess e organismo vivente. Elementi di contatto tra le filosofie della natura di Hegel e Whitehead – attraverso Jonas”, in A. Giacone & L. Vanzago (Eds.), *Hegel e Whitehead*, *Giornale di Metafisica* 1:59–72.

Battistoni G. 2022: “Fondamenti del diritto alla resistenza a partire da Hegel: tra seconda coercizione, diritto di necessità e vulnerabilità”, in S. Achella, F. Iannelli, & C. Magni (Eds.), *Hegel between Subversion and Resistance*, *B@belonline* 9:51–65. http://doi.org/10.13134/2531-8624/1-2022/5

Breidbach O. 1982. *Das Organische in Hegels Denken. Studien Zur Naturphilosophie und Biologie um 1800*. Würzburg: Königshausen und Neumann.

Corti L. & Schülein J.-G. (Eds.) 2023. *Life, Organisms, and Human Nature. New Perspectives on Classical German Philosophy*. Basel: Springer.

Erle G. 2024. “Esiste un’attualità della Filosofia della natura di Hegel?”, in G. Battistoni & F. Campana (Eds.), *Attraverso il sistema: criticità e guadagni teorici del pensiero hegeliano a 250 anni dalla nascita* (pp. 67–86). Napoli: Istituto Italiano per gli Studi Filosofici Press.

Franzini Tibaldeo R. 2009. *La rivoluzione ontologica di Hans Jonas. Uno studio sulla genesi e il significato di ‘Organismo e libertà’*. Milano-Udine: Mimesis.

Gertz N. 2018. “Hegel, the Struggle for Recognition, and Robots,” *Techné: Research in Philosophy and Technology* 22(2):138–157. https://doi.org/10.5840/techne201832080

Hegel G. W. F. 2012. *Vorlesungen über die Philosophie der Natur I. Nachschriften zu den Kollegien der Jahre 1819/20, 1821/22 und 1823/24*, in Id., Gesammelte *Werke*, ed. by the Rheinisch-Westfälische Akademie der Wissenschaften in Verbindung mit der Deutschen Forschungsgemeinschaft, Vol. 24.1. Hamburg: Felix Meiner.

Hegel G. W. F. 1992. *Enzyklopädie der philosophischen Wissenschaften im Grundrisse (1830)*. Hrsg. von W. Bonsiepen & H.-C. Lucas, unter Mitarbeit von U. Rameil. Hegel. *Gesammelte Werke*, Vol. 20. Hamburg: Felix Meiner.

Hegel G. W. F. 1991. *Elements of the Philosophy of Right*. Ed. by A. Wood, trans. by H. B. Nisbet. Cambridge: Cambridge University Press.

Hegel G. W. F. 1976. *Jenaer Systementwürfe III. Naturphilosophie*. Hrsg. von R.-P. Horstmann, unter Mitarbeit von J. H. Trede. *Gesammelte Werke*, Vol. 8 (pp. 3–184). Hamburg: Felix Meiner.

Hegel G. W. F. 1975. *Jenaer Systementwürfe I.* Hrsg. von K. Düsing & H. Kimmerle, in G. W. F. Hegel, *Gesammelte Werke*. Vol. 6 (pp. 1–265). Hamburg: Felix Meiner.

Hegel G. W. F. 1969. *Jenaer Realphilosophie: Vorlesungsmanuskripte zur Philosophie der Natur und des Geistes von 1805-1806*, hrsg. von J. Hoffmeister. Hamburg: Felix Meiner.

Honneth A. 1995. *The Struggle for Recognition*. Cambridge: The MIT Press. https://mitpress.mit.edu/9780262581479/the-struggle-for-recognition/

Horstmann R.-P. & Petry M. J. (Eds.) 1986. *Hegels Philosophie der Natur: Beziehungen zwischen empirischer und spekulativer Naturerkenntnis* (pp. 121–137). Stuttgart: Klett Cotta.

Illetterati L. 1995. *Natura e ragione. Sullo sviluppo dell'idea di natura in Hegel*. Trento: Verifiche.

Jonas H. 2015. *Philosophie. Rückschau und Vorschau am Ende des Jahrhunderts. Vortrag im Prinzregententheater München 1993,* in D. Böhler & B. Herrmann (Eds.), *Das Prinzip Verantwortung. Erster Teilband: Grundlegung,* in D. Böhler, M. Bongardt, et al. (Eds.), *Kritische Gesamtausgabe der Werke von Hans Jonas, Philosophische Hauptwerke* (pp. 561–575), Vol. I,2, Erster Teilband. Freiburg i. Br.: Rombach.

Jonas H. 2001. *The Phenomenon of Life. Toward a Philosophical Biology*. With a foreword by L. Vogel. Evanston (IL): Northwestern University Press.

Jonas H. 1985. *The Imperative of Responsibility. In Search of an Ethics for the Technological Age*. Trans. by H. Jonas with the Collaboration of D. Herr. Chicago and London: The University of Chicago Press.

McGilchrist I. 2019. *The Master and his Emissary: The Divided Brain and the Making of the Western World,* 2nd Edition. New Haven: Yale University Press.

Petry M. J. (Ed.) 1987. *Hegel und die Naturwissenschaften* (pp. 433–466). Stuttgart-Bad Cannstatt: frommann-holzboog.

Vieweg K. (Ed.) 1998. *Hegels Jenaer Naturphilosophie*. München: Fink.

Wandschneider D. 1982. *Raum, Zeit, Relativität. Grundbestimmungen der Physik in der Perspektive der Hegelschen Naturphilosophie*. Frankfurt am Main: Vittorio Klostermann.

*Ethics in Progress* (ISSN 2084-9257). Vol. 15 (2024). No. 2,
Art. #2, pp. 14-35. DOI:10.14746/eip.2024.2.2


Marco Palombelli

(Università degli Studi di Pavia, Pavia, Italy; marco.palombelli01@universitadipavia.it)
ORCID: 0009-0002-2442-1072

**Abstract:** In this article, I aim to show the limits of certain "ways of considering" nature, as well as the intrinsic contradictions in their *modus operandi*, following Hegel's analysis in the Introductions to the Encyclopaedic *Naturphilosophie* and the Berlin *Lectures* on the Philosophy of Nature. After framing the problem within the broader theme – already explored in Jena – of the relationship between nature and spirit, I will show that both the practical and the theoretical, insofar as they are founded in an original separation between human being and nature, result in a subjection of the latter to the former. In order for this to be redeemed from one-sided conduct towards it, it is necessary to access through living intuition a philosophical consideration, which Hegel understands as the discovery of the inner rationality of nature and its very "liberation".

**Keywords:** Hegel; Naturphilosophie; nature; life; organism; science; technique.

## I. Introduction: Nature and Spirit

Hegel's first organic and systematic reflection on nature is to be found in Jena. It is not our intention to reconstruct it exhaustively (see Illetterati 1995a, 43–112; Vieweg 1998), but to take a closer look at a fragment from 1803, *Das Wesen des Geistes*... Consistently with contemporary systematic drafts, we find there the definition of nature as "being-other" of the spirit, a constitutive and dialectical moment of its very essence. In the light of our theme, the way in which Hegel characterises the necessity of this relationship is significant: the relationship with nature is not a mere "confirmation" of what spirit already is or even "a kind of overabundance" (GW 5, 370)[1], but something immanent to its own self-production: its essence "is not self-equality, but making itself equal to itself. It makes itself equal to itself by removing its being-other, nature. The spirit removes nature, or its being-other, because it recognises that this other is itself" (Ibid.). The spirit is the process of its becoming, and nature is an essential moment in this process: by finding itself in what is only apparently external and opposite to it as in its being-other, the externality of

1 Henceforth we shall cite with GW the *Gesammelte Werke* (Hamburg: Felix Meiner 1968 ff.), with W the *Werke* (Frankfurt am Main: Surkhamp 1971), followed by the volume (paragraph, where applicable) and page number. Translations into English are our own.

nature and the one-sidedness of the spirit are removed at the same time. The freedom of the one and the other is at stake.

> Inasmuch as the individual spirit (...) can stand firm and claim its individuality – let nature be what it will; its negative attitude towards nature, as if the latter were other than what it is, despises its power, and by despising it, spirit keeps nature away from itself and itself safe from nature. Indeed, the individual is as great and free as its contempt for nature is great. In this way, it opposes itself to nature and becomes a determinate individuality; for as much as nature is other than it (…), so it is something particular itself; thus it is not truly spirit, because spirit is not something particular but is the absolute universal. The liberation of nature is the liberation of determinacy in general; and the spirit that is in nature is there as in the other of itself, and so it has become an other of itself; that is, it has gone out of itself altogether (GW 5, 370–371).

By relating to nature as an opposite, the human being is condemned to finitude, to a relationship of particular versus particular, where nature can alternatively be despised and merely used or overcome the human with the immeasurable greatness of its works (cf. Hegel 1982, 4). In such an oppositional relationship, human beings would ultimately win being able to use nature for their own purposes, even use nature against itself – for example by using natural things as instruments to hunt animals (see GW 24.3, § 245 Add., 1176; below, § 2). Moreover, as Hegel had already shown in the 1797 fragment entitled *Moralität, Liebe und Religion*, an asymmetrical relationship between subject and object ends up being reversed into a subjection of the latter into the former: "while the subject retains the form of subject and the object that of object, and nature is always nature, there is no unification: the subject, the free essence, is the omnipotent, while the object, nature, is the dominated" (Hegel 1907, 376). But the spirit, as *absolute Negativität*, does more: it immerses itself in nature moved by the "need" (Hegel 2007, 4) to find in the realm of accidentality and contingency its own universality. Certainly, this represents an onerous task for the spirit, which must confront something which apparently opposes it: this is why Hegel can write that *Naturphilosophie* is the "most burdensome" discipline, insofar as the spirit "when it conceives nature, must transmute into the concept[2] the opposite of the concept – a force of which only invigorated thought is capable" (Hegel 1938, 440). Yet only through a philosophical understanding of nature it is possible not only to question human ways of behaving towards it, but also to remove it from the "fumbling hands" of those philosophies of Schellingian-Romantic inspiration that instead of cultivating its study with "thinking reason" have crudely approached it with an "extrinsic formalism" that deadens its life (GW 24.3, 1171). This is possible on condition that a presumed split between nature and spirit, subject and object, is removed: thought can and must take on this lofty task, provided it integrates the object itself, freeing it from its own accidentality. In this way, "the study of nature is therefore the liberation of the spirit within it; for spirit

2 We follow Di Giovanni's choice of translating *Begriff* with "**concept**" rather than "**notion**," because the latter carries the meaning of a subjective representation, which can also be vague, while the former "has the further advantage of being patently connected with 'to conceive', just as *Begriff* is connected with *greifen*, and can easily be expanded into 'conceptual' and 'conceptually grasped'" (Di Giovanni 2010, lxviii).

becomes it insofar as it relates itself not to another, but to itself. This is likewise the liberation of nature; it is reason in itself, but only through the spirit does reason come into existence" (GW 24.3, 1185).

### I.1. Nature as a Problem

Human beings therefore turn to nature moved by the impulse to know it. At first, however, nature is given as an enigma, an object which is resistant to thought and seems inaccessible from within.

> What is nature? We want to answer this general question through the knowledge and the philosophy of nature. We find nature before us as an enigma [*Räthsel*] and a problem before us, which we feel just as driven to solve as we are repelled by it: attracted to it, as the spirit presages in it; repelled by something unfamiliar in which the spirit does not find itself (GW 24.3, 1174: cf. Hegel 1982, 3; GW 24.1, 195).

Nature presents itself as a mystery which must be solved: "philosophy of nature appears to be a new science, but it is not; for the human being has always reflected on nature and tried to understand its concept" (GW 24.2, 757), from the earliest cosmogonies and the investigations of pre-Socratic *physiologoi*. At first, human beings are amazed by nature (Hegel quotes Aristotle, *Met.* I, 2, 982b) as by a complex and irreducible object. They then become familiar with it through perception and the gathering of data. "And in all this wealth of knowledge, the question may arise or reappear for the first time: what is nature? It remains a problem" (GW 24.3, 1175). The claim about nature advanced by the senses dies in the unfathomability of its unitary essence: one would obtain a knowledge of the object in the surface against a hidden interior. But this is inadmissible for thought, which must "force this Proteus to relinquish his metamorphoses and reveal himself to us" (GW 24.3, 1174), to manifest in the accidental and transient what is universal and permanent. This is possible because thought has the capacity to grasp nature, which has an inner rational structure. Thought uses "violence" against nature insofar as it forces accidentality down to its very essence, that is, the idea being given there – we read in § 247 of the *Encyclopaedia – in der Form des Andersseyns*: the interior of nature *is* the universal of thought, brought in a domain that is *proper* to it, despite being affected by immediacy, exteriority and incompleteness (see GW 24.1, 196–198).

We will see that philosophical understanding is the only human activity that succeeds in grasping nature as such. However, human beings also adopt other "behaviours" in relation to nature, "ways of considering" it [*Betrachtungsweisen*, *Verhaltungsweisen*], which Hegel deals with throughout the *Introductions* to the Berlin *Lectures* on the Philosophy of Nature and in the subsequent *Additions* made by Michelet to §§ 245–246 of the *Encyclopaedia*. These are practical, theoretical and intuitive-poetic consideration. They are affected by an intrinsic insufficiency in their relation to the object: precisely this requires a consideration of a higher order in order to encompass their doing and show

their contradictions, as well as to theoretically structure their object. If the latter task falls to the *Naturphilosophie* itself, which must demonstrate the intelligibility of nature, the former falls to an external gaze considering the status of the *Betrachtungsweisen* in relation to their object. Hegel assumes precisely this point of view; hence, he prefaces the exposition of the *concept of nature* (§§ 247–251) with two paragraphs in which the *concept of the philosophy of nature* is set out in relation to those ways of considering it – the need is all the more pressing given the condition in which this discipline finds itself in its time: it "finds itself in the disadvantageous situation whereby its reality and possibility is called into doubt" (GW 24.1, 482). The philosophy of nature is scientifically founded if and only if the necessity of the concept can be found in its object ("foundation [*Grundlage*] that here must be the necessity of the concept"; GW 20, § 246 Rem., 236) and it is therefore placeable in a system of the philosophical sciences, the *Encyclopaedia*. However, Hegel also provides it with a justification [*Rechtfertigung*] by making the philosophical attitude emerge as a reflection on certain ordinary behaviours towards nature (cf. GW 24.1, 482–483). A justification external to the system but conceivably more comprehensible to the hearers of his lectures, mostly scientists.[3]

> We proceed from our usual ways of relating to nature, and we want to know what is contained in it. It is not just a psychological history of this way of relating, but in this the moments that are moments of the concept must be known. In our habitual relationship the moments of the spirit are always contained, but in an abstract, singularised way. The unification of these moments, from which results what constitutes the nature of the concept, must be the instrument with which we want to deal with the nature (Hegel 2007, 5).

### I.2. Some Preliminary Remarks

(a) The practical and theoretical are insufficient ways of considering nature. In order to highlight the limits of both attitudes, Hegel subjects them to a fierce critique, which we can liken to the dialectic to which *Phenomenology*'s figures are subjected. In both cases, indeed, certain attitudes that human beings assume in the face of reality are probed and unmasked in their contradictory nature, only to be overturned in a superior figure that encompasses them. Actually, if one can speak of contradiction for the theoretical – it is Hegel himself who speaks of "overthrowing" (GW 24.1, 482) –, not so for the practical, which does not propose to consider nature as such at all, but rather stops at the interested consumption of it. The juxtaposition with the *Phenomenology* then seems to be all the more legitimate in the fact that, as in the work of 1807, here consciousness is separated

3 We only partially follow C. Martin, who sees here a foundation of the philosophy of nature independent from the *Science of Logic* (Martin 2022, 2–3). Hegel himself, perhaps, prevents this reading: firstly, the "proof (...) that there necessarily is a nature" is to be found "in that which precedes" (GW 24.3, 1173), i.e., in the closure of the *Logic*, since nature is nothing other than the logical idea placed in the element of exteriority; secondly, "nature of knowledge is part of logic, and we must presuppose that here that contradiction [*scil*. between subject and object] is resolved, so that it is possible to know nature. The philosophy of nature is, so to speak, an applied philosophy, logic a pure philosophy, and this must be presupposed here" (GW 24.1, 482).

from its object, has not yet brought that to truth and has not yet overcome its opposition and exteriority (cf., e.g., GW 24.2, 758: see on this point Martin 2022, 5).

(b) The Hegelian critique of the "ways of considering nature" consists not only in overcoming their one-sidedness, but also in bringing to truth what at their level is unknown. This aspect emerges not without ambiguity in the *Lectures* of 1825/26, where Hegel conflates the practical and theoretical in the category of the "natural way," at whose level "we do not yet ask the question: what is nature" (Hegel 2007, 5). Here, "natural" stands for unreflected: the question about the nature of the object that is being annihilated (practical) or universalised (theoretical) is not asked by consciousness, which rather has an absolute faith in its own doing (see Ferrini 2002, 74) and does not address the problem of the object at all. (Unreflected does not mean unconscious, far from it: it deals with behaviours through which human beings *culturally* organise their being in the world, that is, *technique* and *science*). In any case, the equating of the practical and the theoretical in the "natural way" makes the argument tortuous, insofar as this favors consideration of the practical and the theoretical as exclusive opposites, such that if I act practically, I do not act theoretically, and vice versa.

(c) Practical and theoretical are not on the same level. If the former stays at the stage of the particular thing, the latter lies higher, aiming at the same universal at which philosophy aims (see GW 24.1, 489) – except that it is unable to understand it properly. Theoretical and philosophical share indeed the object (nature) and the aim (to know it). Thus, the theoretical constitutes an advance over the practical, which is rather a thoroughly negative activity against nature – it is the will to consume the object of nature, the problem of the object trascends its interest at all. Certainly, reflecting on the practical and highlighting its limits serves Hegel to dismiss a teleological, *eo ipso* utilitarian consideration of nature (see below, § 2). However, the real challenge played out by the philosophy of nature in relation to the object is plaid with the theoretical *modus*, i.e., with the *Naturwissenschaften*, whose status of scientificity must be clarified as well as the intrinsic limits of their doing.

(d) The *Betrachtungsweisen* are behaviours that human beings ordinarily adopt towards nature: they belong to humankind, to human being as such. However, in some places they take on a historical and epochal connotation. For example, there is no doubt that theoretical consideration is proper to modern science, however auroral attempts to explain nature scientifically have been recorded since the dawn of thought (see below, § 3). Similarly, the practical is undoubtedly universal, but it is also true that Hegel, while analysing it, refers it to some civilisations more than others: explicitly – but not in these pages – to the Jewish people, whose relationship of alienation and domination with nature is correlated with an alienated relationship with the divine essence (see Hegel 1907, 243

ff.); to the Christian motif of nature as the image of God's wisdom and generosity, as if creation were nothing but a garden planted for the sake of human beings (see GW 9, 304); more generally, to his time, which on the basis of the teleological presupposition and in the wake of Bacon engages in a technical domination of nature (see GW 24.3, § 245 Add., 1176). In some peoples, then, all aspects seem to coexist: this is the case with the Greeks, who were exemplary both in the technical utilisation of nature (cf. Hegel 1982, 4) and in an early scientific investigation of it (cf. GW 24.2, 757, 763), as well as in its living intuition (cf. GW 24.1, 6) and, with Plato and especially Aristotle, in an excellent philosophical understanding of it (for the respective Hegelian judgements see W 19, 86–105; 168–198).

We believe that a reading of the *Betrachtungsweisen* as modes of the human being as such is to be preferred. This is evidenced, among other things, by the recurrence in these pages of "we" as the subjects of the behaviour being described (see Martin 2022, 20). The human being *in general* can behave in different ways: use nature (practical); explain it (theoretical); feel it (poetic); properly understand it (philosophical). Resorting to a historical example was perhaps meant to serve explanatory purposes in relation to Hegel's audience. One final point should be noted, however, which takes us beyond the Hegelian letter. The diachronic reading would open up an interesting perspective, that of a kind of circularity between the *Betrachtungweisen* inherent in the historical development of the spirit (actually, the synchronic reading also authorises this, this same circularity having to be understood not as through epochs, but as within the same epoch, indeed within the same individual). As if cyclically spirit would flatten itself on unilateral conducts towards its other, nature, then retrace its steps and reconsider its own doing. Its development would be affected by the risk highlighted already in Frankfurt: that of transforming "life into nature" (Hegel 1907, 347) – "nature" here standing for mortified, devitalised nature. Which, as we have seen, is detrimental not only to nature, but to the spirit itself, to which it is essential: to the extent that, as we read in the *Systemfragment* (1800), the problem of the unity of nature's life is at one with the unity of modern humankind, so split and alienated. It would then be at the time of crisis – of nature *and* spirit – that the relationship must be recomposed as well as nature in its very concept. Time of crisis is Hegel's one, as well as our own.

## II. The Practical Relationship

> Man relates himself practically to nature, as something immediate and external, in turn as an immediately external and thereby sensuous individual, who therefore rightly also behaves as an end in relation to the objects of nature (GW 20, § 245, 235).

Practical relationship is an external and oppositional one between human beings and nature. Their confrontation is marked by immediacy, because it takes place within the natural need-satisfaction dialectic with which human beings are endowed as living

organisms. The trigger of the dialectic is indeed the appetite [*Begierde*], which consists of an impulse to assimilate exteriority caused by an original feeling of lack [*Mangel*] or need [*Bedürfnis*]: the negation in the form of hunger, thirst, etc. – but the pattern is the same for less basic needs as well – is in turn negated through the consumption of an external natural being, which in this way becomes the *means* for the *realisation* of a *purpose* that is external to it, that is, a means for the human being, where its end falls.

> The negation of myself, which is within me when I am hungry, is at the same time present as something other than myself, as something to be consumed; my acting consists in overcoming this opposition, as I place this other as identical with me and restore my unity with myself through the sacrifice of the thing (GW 24.3, § 245 Add., 1176).

Through the annihilation of the thing, we restore the *Selbstgefühl*, the feeling of self, which in the first negation had been negated. This is admittedly only a momentary realisation, because this appetite will be followed by another, which will in turn be satisfied, and so on ad infinitum – if the appetite were to be extinguished altogether, there would be no more life. It should be emphasised that the relationship with the medium is one of mutual dependence, since we depend on nature for his own preservation just as nature depends on him in the determination of itself; to the point that, Hegel notes, the practical process is a "relationship of non-freedom," in which the human being finds itself in the "unpleasant feeling of need" but, like the animal organism, has the capacity to bear this contradiction as pain, this being the "privilege of higher natures" (GW 24.3, § 359 Add., 1151–1152; cf. Hegel 1955, 152). The fact that such an "activity of lack" (GW 12, 280) is also proper to the animal, since it is more generally characteristic of the organism – which essentially consists in this capacity to bear contradiction in itself (see GW 20, § 359 Rem.) – and of its activity of assimilating exteriority (GW 20, §§ 357–366; cf. GW 8, 164 ff.), is of no small significance. In order to satisfy their needs, human beings turn negatively to exteriority so that, by removing it, those needs are satisfied. By doing so, they behave no differently from animals, that are driven by the same impulse-satisfaction dialectic. What we want to argue is that here *the human being still behaves in a natural way*, despite in a rather complex and strategic way. It goes without saying, indeed, that the highest forms of human praxis in relation to nature are inaccessible to the animal. This will stop at the immediate consumption of the thing, whereas human beings can not only immediately consume inorganic or organic matter, but also use nature as a tool (a) against nature itself, to dominate its dangers such as the weather, wild animals, etc. – the "cunning of his reason ensures that the human being brings against natural forces other natural things, gives them to be consumed and behind them preserves and maintains itself" (GW 24.3, § 245 Add., 1176); (b) to reflexively and strategically organise its economic and productive activities (hunting, cultivation, animal farming, industrial production, etc.). The practical use of nature and its transformation are undoubtedly behaviours proper to humankind – already of the child, we read in the *Lectures on Aesthetics* (cf. Hegel 1955,

41). However, the *form* is fundamentally the same as that of the animal: one of negation, consumption. We will develop this point shortly, but let this suffice for now in order not to underestimate the passage in which Hegel observes that animals "are not so unreasonable as metaphysics, which considers that nature should not be known; they grasp the thing and destroy it" (GW 24.2, 759; see also GW 9, 69; GW 8, 169: "the animal appetite is the idealism of objectuality, the certainty that it is nothing extraneous.")

Hegel then goes on to point out a double limitation of the practical with respect to its object: a) to stop at the singularity of the entity, at its local consumption (see GW 24.3, § 245 Add., 1176), and thus preclude itself from the universality of nature, which is rather given as a unitary resistance to its activity (see GW 24.1, 478); b) to immediately take it away in the subject and thereby be "too idealistic, too subjective" relation (GW 24.1, 486), from which the problem of the object falls out. Indeed, nature, being utilised, transformed or consumed, is posited as medium in the following relationship: appetite/need (s) – medium (m) – consumption (s'), where consumption is to be understood as realised appetite or need. The natural being falls as a means to the realisation of a purpose that is entirely external to it and belongs rather to the subject that uses it. Nature does not have its end in itself, rather in the usage that one of its entities – the human being – makes of it.

> In this respect we use nature as something useful, that is, we take nature, according to this useful side, as something that does not have its true determination in itself, but only receives it through us. It is in itself nothing, its being is a soulless interior, its purpose is us. That is why the practical appetite exists as something destructive (Hegel 1982, 3).

This point of view is what Hegel calls "finite teleological" (GW 20, § 245, 235). The discussion of the teleological relationship is carried out at the end of the section on the objectivity of the *Science of Logic*, in the chapter entitled "Teleology" and in the corresponding paragraphs §§ 204–211 of the *Encyclopaedia*, to which Hegel explicitly refers here. The Hegelian analysis is complex and we are interested here in highlighting only the salient aspects to justify the Hegelian reference. In the relationship purpose (s) – means (m) – object (o) – realization of the purpose (s'), which teleology configures, the purpose has before it a world that pre-exists and is indifferent to it (object), whose objectivity it elaborates through a practical-technical activity without thereby producing it itself: let us think of a plough, which is the medium not only between the one who plows and the field (object), but also between the plowing itself as an activity and the plowed field as its result. The fact that the model that governs this process is "mainly technical-practical human operation, that form of activity that can be included in the Aristotelian category of *poiesis*" (Chiereghin 1990, 185, our tr.) is significant for the purposes of our argument. The purpose does not only fall outside the object, to which it is inessential (being plowed does not fall as an essential determination of the field), but also outside the activity of its realization, being presupposed at the end of the process, outside it. The product, then, becomes a means in turn for other ends, *ad infinitum* (see GW 20, § 211).

In short, the relationship always refers to a mediation external to the relationship itself: the "external finality" always stops at the level of the means and does not reach a concept of objective purpose. Teleology certainly glimpses the possibility of overcoming this level of exteriority, when it is understood as a principle of mediation that remains immanent in all moments of the process and removes the illusory separateness and independence of subject and object (see on this point Verra 2007, 177–185), but proves insufficient in fully accounting for this ability of the concept to internally guide the process of its self-production.

To do this it is appropriate to move on to a higher mode of understanding: *life*, the first moment of the idea – that is, interpenetration of concept and objectivity, concept that realizes objectivity. The living being, indeed, organizes itself in such a way that the end, life itself, is not an external purpose to be achieved, but something immanent in every moment of its production, the very activity of its making. When faced with living organisms, the reference to an external purpose has no impact, because what guides biological processes is only the purpose of continuous self-preservation and self-production, which produces every moment and is produced by it: "the living being is the syllogism, whose moments are themselves systems and syllogisms in themselves, but active syllogisms, processes, and, in the subjective unity of the living, a single process" (GW 20, § 217, 219). The parts are to be understood as "members" of a unitary and organic process, since life as a universal process can incorporate all its particularizations, both when it deals with the internal coordination of the organs (intraorganic activity) and with the assimilation of externality (extraorganic activity). The organism is, in this sense, the process of its realization, a subject that preserves itself in otherness and is produced in it: "the living being is, and is preserved, only insofar as it reproduces itself, not insofar as it merely is, it only exists insofar as it makes itself what it is" (GW 20, § 352, 353; cf. GW 8, 108–184 for a first discussion of the "organic"; on the organism, see Breidbach 1982; von Engelhardt 1986; Ilting 1987; Hösle 1987; Illetterati 1995b; more recently Corti & Schülein 2023).

Against the background of the transition from external to internal finality, Hegel carries out a critical reworking of Kantian and Aristotelian material. The discussion is broad, but we can mention the main points (see Chiereghin 1990 and Pleines 1991 for an overall reconstruction; Fulda & Horstmann 1990 for the Hegelian relationship with the *Critique of Judgment*). Kant's treatment of the organism in the *Analytic of Teleological Judgment* – to which Hegel is widely indebted – is excellent, indeed "he opened the way to the concept of life, to the Idea" (GW 12, 157; cf. GW 20, § 55 An and § 204 An); however, having limited the objective finality to a reflection of the subject on the living (cf. Kant 1913, § 68, 384) and not having been able to conceive it independently of a divine intellect as creator (cf. GW 12, 155; Hegel 1966, 158–171) is an unforgivable error: since the "forming force" of the living being remains "an unfathomable property" for reason (Kant 1913, § 65, 374), the solution to the antinomy between mechanism and finalism is only apparent (cf. GW 12, 154–160). Although adequately guided in the search for the "legality

of the causal," Kant takes away the truth at the moment in which he is about to grasp it (cf. W 20, 550): to the point that in posing the analogy of teleology with the practical relationship, Hegel plays against Kant an option that he had explicitly excluded, namely that the human being as a sensuous being can be regarded as *Endzweck* of nature (Kant 1913, § 63 and § 67) – while this can well be said of the human being as a *moral end* (Ibid., §§ 83–84). As for Aristotle, on the contrary, praise prevails over criticism.

> The concept of end as internal to natural things is their simple determination, as for example, the germ of a plant which in its real possibility contains everything that must come out in the tree, and therefore as a teleological activity is directed solely towards self-preservation. Even Aristotle has already recognized this concept in nature and calls this activity [*Wirksamkeit*] *the nature of a thing*; the true teleological consideration, and this is the highest, therefore consists in considering nature as free in its peculiar vitality (GW 24.3, § 245 Add., 1177).

The reference is to *Physics* (II, 8, 199 a 12–15), where Hegel recognizes the conceptualization of an unintentional objective end, which would operate in nature as in art but compared to that would be capable of having within itself the principle of its movement (cf. Aristotle 1991, 33). Here, Hegel observes, "is the whole profound concept of the living (...) the idea that realizes itself" (W 20, 305). Starting from its instinctual activity, organisms' logical structure is a dynamic process of realization, *entelecheia*, and its life "is *praxis*, not *poiesis*" (Aristotle 1959, 17), in the sense that the end never falls outside the process of its production. Evolving into human being, the organism is endowed with a more complex activity, but the paradigm is formally the same; that is, self-determination according to an immanent purpose. Hegel – we only mention it – agrees with this point, so much so that he finds in the organism the form of the processuality which belongs the spirit. Because it prefigures it, however, the organism marks its finiteness and its inevitable transcendence into spirit. Whereas the living being "refers to other individuals in an indefinite repetition of its own finitude which never manages to equal the infinity of the form, which is also immanent to it" (Chiereghin 1990, 222), insofar as it experiences the contradiction of always being surpassed by itself up to biological death, which manifests its inadequacy to the universality of life, the human being has the sole possibility of giving reality also to the universal ends of the spirit, that is, of imprinting in the course of becoming "the sign of an end accomplished in itself, which transforms the moment into an occasion of eternity" (Chiereghin 1990, 229). In this light we can understand how Hegel sees in the teleological "the right assumption" that nature "does not have in itself its absolute final purpose" (GW 20, § 245, 235), that is, as in Aristotle (cf. Aristotle 1996, 111), that nature has a demonic and not divine character.

The human being can therefore, by accessing a higher level of praxis, transcend natural immediacy, thus emancipate itself from its naturality. This happens at various levels, which we can only mention. Firstly, through work, which in the fragment *Potenz der Werkzeug* (1803-04) is what mediates the *animalische Begierde*, making the instrument survive the consumption of the thing: it "is that in which working has its permanence,

that which alone advances the worker and the worked, and in which their contingency is perpetuated; the instrument is implanted in the traditions, while both the desiring and the desired exist only as individuals, and as individuals they perish" (GW 6, 300) – coherently with what we read in the *Phenomenology*, where the work of the servant on the thing it is "desire *held in check*, vanishing *staved off*; in short, work *cultivates*" (GW 9, 115). Secondly, recognizing in the object of appetite another self-consciousness, equally entitled to affirm itself and interested in avoiding a mutual annihilation: this is what self-consciousness does in the *Encyclopaedia* (§§ 426–429) as well as in the *Phenomenology of spirit*, where the appetite is interrupted as it sees a life arise, that is, its own self-movement (cf. GW 9, 104 ff); in both cases, the first phase of recognition is still marked by the naturalness of a fight for life. With the recognition of self-consciousness, human beings access a praxis, that of associated life, which in the animal is only elementary: the practical, as in Aristotle, holds both moments and governs the passage from one to the other, from the natural to the spiritual.

In all this, what happens to nature? On the practical level, the negative activity conducted by the animal towards inorganic and vegetal matter – having this value only insofar as it is assimilated (cf. GW 20, §§ 357–366; GW 8, 122: "it is nothing for the organic that is not itself") – is reiterated by human beings on nature in general, the animal itself regressing to inorganic matter in this case. In other words, as long as they behave practically, human beings can only relate to nature *negatively* and *one-sidedly*, because what moves them is the dialectic of appetite, which consists in an interested consumption of the thing, even when that dialectic is mediated in the form of work and technique. This is due to the fact that though living beings' interactions occur within a real interconnected "system of vitality" (Verra 2007, 297–303), remaining at the level of mere nature – that is, before a philosophical understanding of it – such interactions reveal their one-sidedness and immediacy, as well as the mutual externality of the agents, who are not available for recognition as co-agents of the same system. Ultimately, it can only be reversed into the external finality and domination-transformation of nature. For nature to be redeemed it is necessary to access a new level of conceptualization, (apparently) that of theoretical consideration, which arises as a 'pure seeing' nature in its free subsistence.

## III. The Theoretical Consideration as Proper to the *Naturwissenschaften*

There is no doubt that the theoretical consideration of nature is specific to the empirical sciences. It is more difficult to clarify which sciences. If it is true that in some places (GW 20, § 246) Hegel refers explicitly and exclusively to physics, in the *Additions* and *Lectures* the discussion is more varied and the theoretical is to be considered as a "way of considering proper to intellect" transversal to all the empirical sciences (GW 24.1, 191), including those which at the turn of the century flourished in a renewed scientific impetus aimed at understanding living beings (see on this Achella 2010, 81–

109). Compared to other disciplines, physics seems to enjoy a peculiar status because it finds itself engaged in a universal understanding of the sphere of experience, of which it is already a "thinking knowledge" (GW 24.3, 1174): to the extent that in the course of 1825/26, for example, the theoretical is lowered to a sensuous relationship with the object and explicitly distinguished from physics (GW 24.2, 758) – however, this is unique in the Berlin *Introductions*, where the theoretical-practical-philosophical scansion prevails. For this reason, Hegel is particularly keen to underline the limits of the universal that physics makes use of, whose formality and abstractness becomes paradigmatic for scientific investigations in general, and to find in it an ally to integrate into the project of a philosophy of nature as "rational physics" (of which Aristotle would have already given proof: cf. GW 24.3, 1173).

Hegelian interest in the scientific debate of his time since the time of Bern is widely established, as is his participation in it and his erudition in this regard (see Ferrini 1993, 2009). It is equally known that the philosophical comparison with the sciences is a transversal place in Hegel's work, from *De orbitis planetarum* (1801) up to his major works, passing through the *Differenz* and the epistemological themes that unfold along the path of phenomenological consciousness (see Verra 2007, 262 ff). Since the 1970s, it has also been recognised, through a finally impartial and scrupulous reading of the text and the Berlin courses gradually edited, that Hegelian philosophy of nature does not want to replace the work of the sciences – which, as stated in the *Introduction* to the *Encyclopaedia*, is the very material which philosophy redetermines (see, e.g., GW 20, § 9, § 12) – but rather to make speculative use of their results by conceptualising them on *another* level, according to a model of *mutual correspondence* and *integration* (see Michelet 1842; Buchdal 1993; GW 24.3, §§ 246 and 250 Rem. and Add.; GW 24.1, 487–495). This comparison is not free from a laborious critical comment regarding the methodology and results of the sciences: in this sense two levels would operate, that of the "philosophy of nature" proper and that of the "philosophy of science" (McMullin 1969). It is evident that some tensions remain, in particular in relation to the symmetry of the relationship itself – where the criterion of truth falls when philosophy contradicts the sciences, and vice versa – and to Hegel managing to free the philosophical understanding of nature from the contingency of the empirical and by the sciences of his time (see on this point Michelet 1842, XVII; Gies 1987).

These are issues that we can at most mention, given that they deserve much more extensive development. In relation to our theme, indeed, what we are interested in underlining is rather the epistemological limit of the *Erfahrungswissenschaften*. This limit is for sure overcome when philosophy "takes the material that physics prepares for it by drawing it from experience (...) and reconstructs it in turn without placing experience as the ultimate condition of verification" (GW 24.3, § 246 Add., 1182), that is, through a *reflection* that philosophy conducts on the material of the sciences, integrating it into a different conceptual system – however, confirming the tension mentioned above,

elsewhere (e.g., GW 20, § 246 An, 236) the discovery of the corresponding phenomenon seems to be a subsequent step to the deduction of the concept itself (see on this point Webb 1980, 171 ff). What is certain is that remaining on the level of the sciences this logical step – the necessitation of the contingent which is presupposed by those sciences as externally given (see Ferrini 2002, 74 ff) – is not possible. This is the aspect we intend to investigate here, being for this reason highlighted critical aspects over those which seek a conciliation between the two levels. It is particularly significant, in this light, that the critical analysis of theoretical consideration can be placed in almost exact analogy with the Hegelian treatment of phenomenological observing reason (on which see Ferrini 2009; Illetterati 1995a, 183–218), which opposes the object and, guided by an "instinct of reason," sinks into it to find nothing other than itself. Even the theoretical, indeed, is affected by an epistemological split with the natural object, as we shall see, and turns this object into its own intellectual categories.

The theoretical is composed of two moments, or "sides." The first is the sensation, which does indeed result from a withdrawal from the object and the suspension of the desire to consume it ("we withdraw from natural things, we leave them as they are"; GW 24.3, § 246 Add., 1176), but still constitutes an interested relation to the thing, a form of subjectivation. Sensation is directed towards an object that it finds as external and given. If the empirical sciences were to stop at this level, "the work of the physicist would consist only of seeing, hearing, smelling and so on, and in this sense animals would also be physicists" (Ibid., 1177). But there is more. The human being relates to data by thinking them, which is impossible for the animal (cf. GW 24.1, 188). The intellect, in fact, relates itself to the perceptual content, which is single, by inscribing it in a web of cross-references and connections, by subsuming it in classes or *concepts*, in representations. Its activity, which leads from the singular of the perceptible intuition to the universal of its conceptualisation, is described as a necessary process: such a "metaphysics in the science of nature" is a "fact" deriving from the nature of the mind (Ibid., 190). In this way, the material of the sciences is twofold, the particular of experience and the universal of theory (see on this point Ferrini 2002, 70 n. 3).

For Hegel this process is not without effects, as it involves the transformation of the object into something else, which does not essentially inhere in it. As a matter of fact, the thing exists singularly, regardless of its formalization, which occurs entirely on the subject's side: "you cannot show someone an animal in general, but only this animal, something entirely single. The universal is nothing more than the sensible," but its correlation, reproduction, "juxtaposition" (GW 24.1, 189). The object is left to be something separate and impenetrable, from which thought abstracts. "Objects exist, we find them as existing in themselves, which, in the change of their forms, follow their own laws. They are something hard for us, and we deal with them on the surface" (Hegel 1982, 3): quite the opposite of the practical relationship, where the object is permeable to our ends, immediately removed for their realization. Since the universal of sciences is merely

constructed by abstraction – and the particular is not rather deduced from the universal itself – the link between the two sides lacks necessity and scientificity. There can be no guarantee of successful correspondence between concept and object and, when this were found, its unit of measurement would fall outside of the thought itself. Which, in Hegelian terms, means stopping at the aporias of the intellect: at this level "the difficulty arises: how do we get from the subject to the object?" (GW 24.3, § 246 Add., 1178) – a question that can only be asked by assuming that there is no original identity between thought and object, that the idea is merely a "scholastic idea" (GW 24.1, 489). The universal and the particular are here two irreducible and heterogeneous terms: if, for example, "the animal is defined, in this case the gender, particular species and similar things are not yet given. All these particular determinations cannot be derived from the concept of the animal" (GW 24.1, 193); equally for empirical concepts such as attractive force, electricity, mass, etc., such empty abstractions from which concrete instantiations are indeducible. The concept of the sciences *reflects* being and at most organizes or describes it but is not able to *deduce* it.

Since the conceptual elaboration is subjective, the thinking mind can equip with the most varied and arbitrary conceptual instruments to approximate the object, which, moreover, potentially multiply infinitely when new phenomena arise for which the previous formulations are not suitable. For example, selecting the "characteristic signs" of the object – such properties that essentially and univocally inhere in it – raises the problem of the criterion according to which some properties are essential, others inessential; the unit of measurement would fall outside the relationship, and the relationship of the *Maßstab* now identified with the first relationship would in turn have to be mediated; and so on, *ad infinitum*. "Often we simply go for broke, but often we also grab the right thing" (GW 24.1, 189); or one is completely wrong, as is not infrequent in Linnaean taxonomy, already the subject of extensive discussion at the turn of the century. Otherwise, the sciences operate on sensitive things, transforming them into forces, matters, etc.; that is, into formalizable concepts that are related through laws through which the phenomenon is intended to be described. Yet, "things of this kind do not fall into perception; what falls into perception are simply extrinsications. Their laws are not attributed to celestial bodies (...) Strength, on the other hand, is what persists internally" (GW 24.1, 189). The deficiency of these laws is twofold: a) that of establishing a relationship between two terms without demonstrating their logical implication; b) that of not deducing the phenomenon from universal laws, which are, in this sense, tautologies that say the "how" of the thing and not its "why" (compare "Force and Intellect" in the *Phenomenology*; GW 9, 82 ff). Consequently, the law of science is missing of necessity and stops at the contingency of the data.

The theoretical consideration is therefore affected by a double *separation*, of the universal from the particular and of the particulars from each other (GW 24.1, 192). Not only is the concept incapable of penetrating the object and it completely abstracts from it, but the particulars themselves remain unrelated – which is mostly serious when it comes

to explaining phenomena governed by a systemic logic, such as the organism. Natural sciences analyse nature until they reduce it to its elementary components; the attempt to synthesize them by making them interact according to formalized models does not gain the unity that was originally fragmented, since the analysis and synthesis fall apart from each other: by putting together the elementary qualities of the flower you do not obtain a real flower (GW 24.3, § 246 Add., 1183). In the realm of formulas, the life of nature, "its warm richness," which "takes shape in wonders attracting us in a thousand ways, withers in arid forms and shapeless universalities, which resemble a dull northern fog" (Ibid., 1178). The idea of leaving the thing in its free existence, at which sciences originally aim, turns into its manipulation:

> we find that the theoretical relation is contradictory within itself, in that it seems to produce the result immediately opposite of what it intends. That is, we want to know nature that actually is, not something that is not; instead of leaving it and taking it as it is in truth [*in Wahrheit*], instead of perceiving it [*wahrnehmen*], we make something entirely different out of it (...) something subjective, produced by us, (…) peculiar to us as human beings; for natural things do not think and are not representations or thoughts (GW 24.3, § 246 Add., 1178).

To the point that, we read in the fragment *Das Wesen des Geistes*..., the implantation of a law in the motion of the planets is equal to the enslavement of the slave to a will other than his own; like that, the body that is considered to move according to an action exerted from the outside would have "only an external purpose" and would have its determination "only relatively, in another": "all life is lost" (GW 5, 24). Despite not being a thoroughly transparent conceptual turn – external purpose is proper to the practical, not the theoretical – it underlines a crucial point in our argument: the theoretical and practical are forms of manipulation (real or ideal) of the object of nature, which are due to a more original separateness between the two terms. In both cases, the natural being finds its own determination in an external entity that variously subjugates it. For the object to escape from a logic of domination, a different conceptualisation is required, one that removes an alleged heterogeneity between subject and object and, in so doing, exposes the latter according to *its own reasons*.

## IV. Nature as a Whole

It is questionable whether an autonomous space exists within the *Betrachtungsweisen* for what we can call the "intuitive" or "poetic" way. If it is true that in the major work there is no place specifically dedicated to its treatment – as is the case for the practical (§ 245) and the theoretical (§ 246) – on a closer examination its role is not insignificant: the intuition of nature is the necessary link between the scientific analysis of nature and the philosophical understanding, since it has the task, so to speak, of delivering nature as a living whole to philosophy, redeeming it from the scientific fragmentation. As such, it does not seem to configure an attitude distinct from the three main ones, but a moment that

precurses the more accomplished one and makes it logically possible; it is precisely this transitional character that marks its importance but also its limitation.

At first, the "romantic" spirit reacts to the separateness resulting from scientific work through intuitive and sentimental means.

> The unprejudiced, spontaneous spirit, when it observes nature in a living way, as we often see happen in Goethe, in a shrewd, penetrating way, feels the life and the universal nexus in it; it presages the universe as an organic whole and a rational totality; just as in the individual living being it feels an inner unity within itself (GW 24.3, § 246 Add., 1183).

The split typical of the attitudes considered so far is here at once overcome in the direction of an almost original fusion, in which subject and object immediately communicate their own determinations, in a kind of universal expansion (reminiscent of that originally innocent human state in nature, the immediate unity of opposites, which for Hegel is not more than a reverie or prophetic speech: see GW 24.3, § 246 Add., 1178–1179). This naive and poetic soul, placed in the midst of nature, feels life flowing in the things of nature – one thinks of the opening pages of Goethean *Werther* –, foreshadowing the universal connection of individuals, which is life itself. The whole is "organic" because it is given in all its parts, but rationality and unity are rather concluded by analogy with human interior, "presaged." The unity thus produced is an immediate feeling of the unity not bearing the burden of contradiction, as the parts have not yet been rationally mediated with the whole; a union that has not integrated non-union into itself, we would say with the Frankfurt formulation. Philosophy cannot go further with it: intuition, in order to be in any way fruitful, "must be thought" (GW 24.3, § 246 Add., 1183) and flow into philosophy, which is thinking of the contradiction, dialectical and not immediate *Aufhebung*. Those who claim to philosophise on the basis of intuition alone can at best achieve the spectacular results of the philosophies of Schellingian-Romantic inspiration, whose forms of thoughts are devoid of life precisely because the life of nature has been entirely exhausted in feeling and thought is left with no more than a pale mirroring of it – or else thought is one with that feeling and does not overcome its immediacy.[4]

Certainly, the *poetische Anschauung* configures a logical advance in relation to the status of its object. By intuiting the life of nature, the spirit establishes an affective relationship with it, which Hegel refers to as *Mitgefühl*, and only at this point can he feel it "alive, free": "in the form of feeling, the human being finds that life pulses around; that objects have a legitimate existence (...) like its own. It regards nature as an end in itself" (GW 1, 5–6), as a self-regulating process which is irreducible to subjectivation. And yet, the determinations provided by intuition (life, self-finality) are immediate, not yet rationally demonstrated and deduced: it is therefore a matter of thinking those intuitions, which

4 Here, Hegel seems to be making a retrospective move, if one considers the positions he himself expressed in the years of the Tübingen *Stift*, when he was not indifferent to the influences of Jacobian *Allwill* or Hölderlinian ἕν καὶ πάν, as numerous Bernese fragments testify, right up to the inspired verses of *Eleusis* (see Achella 2019, 41 ff.).

only through reason can come to essentially inherit the thing. Otherwise, there would remain nothing more than a mere "faith in vitality" (GW 1, 7). The living intuition has indeed shown that the natural sciences "break the unity of the living" and are therefore incapable of understanding it (GW 24.1, 191), but here it has exhausted its task, which it is up to philosophy to collect and bring to maturity.

By *thinking life*, philosophical consideration first introduces distinction into such a formal and undifferentiated absolute, thus making life a *concept*.

> Intuition must also be thought, what has been shattered must be brought back by thought to the simple universality; this thought unity is the concept, which has the determinate distinctions, but as a unity moving in itself. For the universality of philosophy the determinations are not indifferent; this universality is the universality that fulfils itself and in its adamantine identity contains at the same time the distinction (GW 24.3, § 246 Add., 1183–1184).

Thinking the life of nature means conceiving its concept, or rather, thinking it *as a concept*. Life as such is indeed not irreducible to philosophical thought and its thematization can preserve to philosophy its scientific character. The investigation into a form of thought that could conceive life, as is well known, had been central to Frankfurt's reflections up until the *Systemfragment* (1800), where a modality of thought is developed which breaks through the oppositions of the intellect, overcomes the propositional (non-contradictory) form and gives actuality to the "union of union and non-union" (Hegel 1907, 348). In characterising it, Hegel uses the logical category of the *concept* [*Begriff*], meaning not a mental representation, as is suggested by its modern usage, but the very movement of thought through which the universal produces by itself and in itself the particular: exclusively concept is such a unity managing to hold together self-identity and distinction. Concept can manifest as life because of a structural homology, due to their being immanent to its particularisations and, at the same time, continually transcend them. Specularly, only if life is understood as a concept can one finally understand not only the individual living being in its internal and external dialectical activity, but also nature as a rational and living totality, as the Greeks had already shown (cf. Hegel 1982, 5). With this, it is possible to redeem the aporias experienced in the previous figures regarding the reciprocal exteriority of universal and particular: "the one-sidedness of the theoretical and practical relationship has been overcome, and, at the same time, justice has been done to both determinations. That contains a universality without determinacy, this a singularity without universal (...). Conceptual knowledge is thus the unity of the theoretical and practical relationship (...); for true singularity is at the same time universality in itself" (GW 24.3, § 246 Add., 1184–1185). The universality of life is such that although it exerts itself negatively on singularity, it does not annihilate it but rather constitutes it as its moment, albeit transitory and incomplete but also essential.

The first step for the project of a *Naturphilosophie* to stand is therefore to remove the irreducibility of nature to thought, not without clarifying the true nature of this "I" which is "the supreme summit of the spirit" but also "the most superficial thing on everyone's

lips" (GW 24.1, 501). The "I" is, consistently with the *Science of Logic*, the concept posited as existing. As universal impulse to be in its other, the "I" has the capacity to be completely at its thoughts and to produce itself in its objects. This "I" as thought directs itself towards nature and finds that nature is susceptible of universality: "the interior of nature is nothing if not universal" and likewise "my innermost nature is that universality itself. (...) Thought, that is the self" (GW 24.1, 197). Finding itself in its other, thought is there as in itself: it finds in the protean multiplicity of the otherness a unitary and necessary development, proceeding by degrees from the most abstract determinations to the most subjective and concrete ones: nature "is in itself rational, but the concept does not retain in it the true element of its existence, of its reality. (...) The concept, which in nature is found only in becoming, is brought and freed, as nature is understood, into its own element" (GW 24.1, 200–201). The *Natursein* is so brought into truth and nature ceases to be "merely the external power: superstition disappears" (Hegel 1982, 6). It is not a matter of a necessitation *tout court* of the contingent or of an a priori deduction of it, but of its *re-comprehension* as the gradual development of a rational structure, with respect to which it ultimately retains a character of exteriority and inexhaustibility, being the "impotence" [*Ohnmacht*] to concept its irreducible determination (see GW 20, § 247, § 248, § 250).

The second step, as already anticipated, is the conceptualisation of a thought that can be one with its object – thought of the living or, rather, *living thought*.

> But the spirit goes further and thinks life rationally, not intelligibly through an abstract determination, but thinks it alive. (...) Philosophy is reason, thinking nature as living nature. (...) The spirit knows itself as a rational being, not different from nature in its innermost essence, it knows this substantial unity as its own essence and that of nature; thinking rationally it thinks its thought subjectively, thus its object is also a rational living being (GW 24.1, 7).

Philosophy is indeed "essentially thought of the natural as of the living" (Hegel 1982, 4). The challenge played out by the philosophy of nature is to show how thought can very adhere nature, to the point of being its own movement the real movement of nature: if "one opposes life and thought to theory, then this theory is the abstract metaphysics of life, which is grey" but rational thought "is the living being" itself (Ibid.). This does not lead to a mystical-fusion dimension, but to an activity that is directed towards the object to the point of overlapping it and becoming "thinking life" (Hegel 1907, 347). And here Hegel is modelled not only on much neo- and medioplatonic material (see Achella 2019, 54–69), but also on the Anaxagorean *nous* as universal reason immanent to phenomena (see W 18, 380 ff.; Ferrini 2002, 72), as Hegel himself notes (cf. GW 24.1, 197).

In the light of our theme, it is finally worth noting the advantages of the philosophical point of view in relation to its object. Whereas previous figures were characterised by an imbalance between subject and object automatically resulting into a subjugation of the object, "the task of philosophy" is this: "that, according to the theoretical side, I regard nature not merely as the being, but also as my own; and that, according to the practical side, I regard it not merely as my own, not merely as what lacks itself, but as what it is for

itself. This is what constitutes the unification and solution of the problem" (Hegel 1982, 4). This means that nature is as much essence as it is mine, provided that the belonging does not refer to an empirical individual but to thought itself (cf. GW 5, 373). For if in the practical "the natural is that which must perish, the nothingness, in rational knowledge I leave it free and I 'am' without fear of losing it. (…) its freedom has nothing terrible for me because its essence is mine" (Hegel 1982, 6). Going back to the dialectical determination of freedom that in the encyclopaedic "Subjective Spirit" governs the transition to universal self-consciousness, Hegel can state: "man is free only insofar as others beside him are also free" (Hegel 1982, 6). Only on the condition of freeing nature from human utilisation and theoretical investigations, is it possible to establish its freedom, which is one with human freedom – a freedom that is affected by necessity and contingency, but nevertheless is inexhaustible by the manipulation of one of its entities. The one-sidedness of previous relations has been overcome, equally the relations of domination to which they gave rise: "the philosophy of nature is thus the science of freedom" (Hegel 1982, 6).

## V. Conclusions

We have tried to show how Hegel intends to distinguish the philosophical understanding of nature from other human behaviours towards it, which are originally marked by the presupposition of a separation and consequently by a relationship of asymmetry and subjection. In order for this presupposition to be removed, nature must be handed over to the activity of thought, whose work on it is not manipulation but can be defined as a finding of the inner logic that structures appearance. Only philosophy can relate to nature as a rational totality and to its beings as agents of a "system of vitality." This does not only apply to the most complex organisations – organisms – but also to the most abstract and original determinations, for which it is a matter of finding at their core the logical development from one to the other (space and time, force and matter, etc.). In the light of a conceptual consideration of nature, for example, the *earth* will turn out to be not an organism proper, but the unitary condition of life of all living beings, "the universal, namely immediate individual" that "does not yet have its life as a soul, but is as universal life, life in the element of being" unfolding "its limbs and articulation as a rigid body" (GW 8, 112). This very point prompts reflection: what limit can be fixed to human action when this becomes dangerous for that very earth and for the whole nature as a system (see on this point Battistoni 2023)? The practical relationship towards nature is one with the anthropocentric presupposition: to what extent can philosophy retroact for this to be amended? Certainly, Hegelian philosophy is one that *comprehends*: in these pages we should not find a premature ecologism, a reaction to the crisis that calls for a structural modification of certain human behaviours. As stated by R. Bodei, indeed, undoubtedly for Hegel the logical-historical development of the spirit "still has nature as its presupposition, but as a presupposition dominated" (Bodei 2014, 174). We would say, hoping to grasp the

spirit of these pages, that Hegel rather intends to point out the one-sidedness of some human ways of dealing with nature and the necessary overcoming towards a rational understanding of nature, worthy of the very nature of the human being, which however is only attainable on *another* level. In the form of a theory that exerts itself over praxis, coming onto the stage when praxis has already run its course, Hegel's intention seems to be to make explicit the unknowing that lurks at the bottom of the praxis. The *change* – the rationalisation of those behaviours – is a step subsequent to and external to Hegel, which can also find an important theoretical foundation in these pages.

## References


Achella S. 2019. *Pensare la vita. Saggio su Hegel*. Bologna: il Mulino.

Aristotle 1959. *Politics*, trans. by H. Rackham. Cambridge: Harvard University Press.

Aristotle 1991. *The Complete Works of Aristotle*, ed. by J. Barnes, Vol. 1, *Physics*. Princeton: Princeton University Press.

Aristotle 1996. *Aristotle on Sleep and Dreams: A Text and Translation with Introduction, Notes and Glossary*, trans. by D. Gallop. Warminster: Aris & Phillips LTD.

Battistoni G. 2023. "Ambiente e responsabilità. Verso una riattualizzazione delle filosofie della natura di Hegel e di Jonas", in C. Chiurco (Ed.), *Il contagio e la cura. Il mondo dopo il virus* (pp. 111–135). Verona: QuiEdit.

Bodei R. 2014. *La civetta e la talpa. Sistema ed epoca in Hegel*. Bologna: il Mulino.

Breidbach O. 1982. *Das organische in Hegels Denken. Studien Zur Naturphilosophie und Biologie um 1800*. Würzburg: Königshausen und Neumann.

Buchdal G. 1993. "Hegel on the Interaction between Science and Philosophy," in M. J. Petry (Ed.), *Hegel and Newtonianism* (pp. 61–71), Dordrecht: Springer. https://doi.org/10.1007/978-94-011-1662-6_5

Chiereghin F. 1990. "Finalità e idea della vita. La recezione hegeliana della teleologia di Kant", *Verifiche* 19: 127–229.

Corti L. & Schülein J.-G. (Eds.) 2023. *Life, Organisms, and Human Nature. New Perspectives on Classical German Philosophy*. Basel: Springer.

Di Giovanni G. 2010. "Introduction" and "Translator's Note," in G. di Giovanni (Ed.), G. W. F. Hegel, *The Science of Logic* (pp. xi–lxxiv). Cambridge: Cambridge University Press.

von Engelhardt D. 1986. "Die biologischen Wissenschaften in Hegels Naturphilosophie", in R.-P. Horstmann & M. J. Petry (Eds.), *Hegels Philosophie der Natur: Beziehungen zwischen empirischer und spekulativer Naturerkenntnis* (pp. 121–137). Stuttgart: Klett Cotta.

Ferrarin A. 2001. *Hegel and Aristotle*. Cambridge: Cambridge University Press.

Ferrini C. 1993. “Nuove fonti per la filosofia della natura del primo Hegel: dal «Catalogue de la Bibliothèque de Tschugg» a Berna”, *Rivista di Storia Della Filosofia* 48(4):717–760.

Ferrini C. 2002. “Being and Truth in Hegel’s Philosophy of Nature,” *Hegel-Studien* 37:69–90.

Ferrini C. 2009. “Reason Observing Nature,” in K. R. Westphal (Ed.), *The Blackwell Guide to Hegel’s Phenomenology of Spirit* (pp. 92–135). Oxford: Wiley-Blackwell. https://doi.org/10.1002/9781444306224.ch5

Fulda H. F. & Horstmann R.-P. (Eds.) 1990. *Hegel und die Kritik der Urteilskraft*. Stuttgart: Klett Cotta.

Gies M. 1987. “Naturphilosophie und Naturwissenschaft bei Hegel”, in M. J. Petry (Ed.), *Hegel und die Naturwissenschaften* (pp. 349–376). Stuttgart-Bad Cannstatt: frommann-holzboog.

Hegel G. W. F. 1907. *Hegels theologische Jugendschriften*, hrgs. von H. Nohl. Tübingen: Mohr.

Hegel G. W. F. 1938. “Nürnberger Schriften. Texte, Reden, Berichte und Gutachten zum Nürnberger Gymnasialunterricht, 1808-1816”, in *Sämtliche Werke,* Bd. XXI, hrsg. von J. Hoffmeister. Leipzig: Felix Meiner.

Hegel G. W. F. 1955. *Ästhetik*, 2 Bd., hrsg. von F. Bassenge mit einer Einführung von G. Lukàcs, 2. Auflage. Frankfurt am Main: Europäische Verlagsanstalt GmbH.

Hegel G. W. F. 1966. *Vorlesungen über die Beweise vom Dasein Gottes,* hrsg. von G. Lasson. Hamburg: Felix Meiner.

Hegel G. W. F. 1968-. *Gesammelte Werke* (GW), hrsg. von der Rheinisch-Westfälischen Akademie der Wissenschaften in Verbindung mit der Deutschen Forschungsgemeinschaft. Hamburg: Felix Meiner.

Hegel G. W. F. 1971. *Werke in Zwanzig Bänden*, hrsg. von E. Moldenhauer und K. M. Michel. Frankfurt am Main: Suhrkamp.

Hegel G. W. F. 1998. *Entwürfe: Schriften und Entwürfe (1799-1808)*, hrsg. von M. Baum und K. R. Meist. *Gesammelte Werke*, Bd. 5 (GW 5). Hamburg: Felix Meiner.

Hegel G. W. F. 1975. *Jenaer Systementwürfe I*, hrsg. von K. Düsing und H. Kimmerle. *Gesammelte Werke*, Bd. 6 (GW 6). Hamburg: Felix Meiner.

Hegel G. W. F. 1971. *Jenaer Systementwürfe II*, hrsg. von R.-P. Horstmann und J. H. Trede. *Gesammelte Werke*, Bd. 7 (GW 7). Hamburg: Felix Meiner.

Hegel G. W. F. 1978. *Jenaer Systementwürfe III*, hrsg. von R.-P. Horstmann. *Gesammelte Werke*, Bd. 8 (GW 8). Hamburg: Felix Meiner.

Hegel G. W. F. 1980. *Phänomenologie des Geistes*, hrsg. von W. Bonsiepen und R. Heede. *Gesammelte Werke*, Bd. 9 (GW 9). Hamburg: Felix Meiner.

Hegel G. W. F. 1981. *Wissenschaft der Logik. Zweiter Band. Die subjektive Logik* (1816), hrsg. von F. Hogemann und W. Jaeschke. *Gesammelte Werke,* Bd. 12 (GW 12). Hamburg: Felix Meiner

Hegel G. W. F. 1992. *Enzyklopädie der philosophischen Wissenschaften im Grundrisse* (1830), hrsg. von W. Bonsiepen und H. C. Lucas. *Gesammelte Werke*, Bd. 20 (GW 20). Hamburg: Felix Meiner.

Hegel G. W. F. 2012. *Vorlesungen über die Philosophie der Natur*. *Nachschriften zu den Kollegien den Jahre 1819/20, 1821/22, 1823/24*, hrsg. von W. Bonsiepen. *Gesammelte Werke*, Bd. 24.1 (GW 24.1). Hamburg: Felix Meiner.

Hegel G. W. F. 2014. *Vorlesungen über die Philosophie der Natur. Nachschriften zu den Kollegien den Jahre 1825/26 und 1828*, hrsg. von N. Hebing unter Mitarbeit von W. Bonsiepen. *Gesammelte Werke*, Bd. 24.2 (GW 24.2). Hamburg: Felix Meiner.

Hegel G. W. F. 2016. *Vorlesungen über die Philosophie der Natur. Sekundäre Überlieferung*, hrsg. von N. Hebing. *Gesammelte Werke*, Bd. 24.3 (GW 24.3). Hamburg: Felix Meiner.

Hegel G. W. F. 1971. *Werke*, hrsg. von E. Moldenhauer und K. M. Michel, Bd. 20. Frankfurt am Main: Suhrkamp.

Hegel G. W. F. 1982. *Die Vorlesung von 1819/20*, *Naturphilosophie*, Bd. 1, hrsg. von M. Gies in Verbindung mit K.-H. Ilting. Napoli: Bibliopolis.

Hegel G. W. F. 2007. *Vorlesungen über die Philosophie der Natur. Berlin 1825/26. Nachgeschrieben von Heinrich Wilhelm Dove* in *Vorlesungen. Ausgewählte Nachschriften und Manuskripten,* Bd. 17, hrsg. von K. Bal und G. Marmasse, T. Posch, & K. Vieweg. Hamburg: Felix Meiner.

Hösle V. 1987. "Pflanze und Tier", in M. J. Petry (Ed.), *Hegel und die Naturwissenschaften* (pp. 377–422). Stuttgart-Bad Cannstatt: frommann-holzboog.

Illetterati L. 1995a. *Natura e ragione, Sullo sviluppo dell'idea di natura in Hegel*. Trento: Verifiche.

Illetterati L. 1995b. "Vita e organismo nella filosofia della natura di Hegel", in F. Chiereghin (Ed.) *Filosofia e scienze filosofiche nell'«Enciclopedia» hegeliana del 1817* (pp. 337–427). Trento: Verifiche.

Ilting K.-H. 1987. "Hegels Philosophie des Organischen", in M. J. Petry (Ed.), *Hegel und die Naturwissenschaften* (pp. 349–376). Stuttgart-Bad Canstatt: frommann-holzboog.

Martin C. 2022. "Three Attitudes towards Nature," *Hegel Bulletin* 43(1):1–25. https://doi.org/10.1017/hgl.2021.17

McMullin E. 1969. "Philosophies of Nature," *New Scholasticism* 43(1):29–74.

Michelet K. L. 1842. *Vorrede* a G. W. F. Hegel, *Vorlesungen über die Naturphilosophie als der Encyclopädie der philosophischen Wissenschaften im Grundrisse. Zweiter Theil*, in K. L. Michelet (Ed.), *Werke*, Vol. 7 (pp. v–xxvi). Berlin: Duncker & Humblot.

Pleines J.-E. (Ed.) 1991. *Zum teleologischen Argument in der Philosophie. Aristoteles – Kant – Hegel*. Würzburg: Königshausen & Neumann.

Verra V. 2007. *Su Hegel*, ed. by C. Cesa. Bologna: il Mulino.

Vieweg K. (Ed.) 1998. *Hegels Jenaer Naturphilosophie*. München: Fink.

Webb T. R. 1980. "The Problem of Empirical Knowledge in Hegel's Philosophy of Nature," *Hegel-Studien* 15:171–186.

*Ethics in Progress* (ISSN 2084-9257). Vol. 15 (2024). No. 2,
Art. #3, pp. 36-61. DOI:10.14746/eip.2024.2.3


# *The Wonders of the World and the Wonder of Man: Sophocles' Ode to Man in Hegel, Heidegger, and Jonas*

Paul Wilford

(Yale University, New Haven, USA; paul.wilford@yale.edu)
ORCID: 0000-0001-8172-1325

Nicholas Anderson

(Harvard University, Cambridge, USA; nicholas_anderson@fas.harvard.edu)
ORCID: 0000-0002-7165-738X

John Loebs

(Boston College, Chestnut Hill, USA; loebsj@bc.edu)
ORCID: 0009-0003-6947-786X

**Abstract:** This article brings Georg Wilhelm Friedrich Hegel, Martin Heidegger, and Hans Jonas into conversation about man's relationship to nature on the basis of their references to the "Ode to Man" from Sophocles' *Antigone*. Hegel's reference to the ode in his *Naturphilosophie* highlights the violence of man's practical relation to nature even as it also points beyond all opposition to a philosophic relation that discerns man's underlying unity with nature. By stressing that the ode's evocation of man's violence against nature is undergirded by the overwhelming violence that nature perpetrates upon man, Heidegger's *Introduction to Metaphysics* raises the possibility that Hegel's "higher" relation to nature is an outgrowth of Western history's oblivion of man's essentially violent exposedness to being. Jonas concurs with a version of Heidegger's concern in his *Imperative of Responsibility* and asserts that man's violent mastery of nature has reached an uncanny excess that renders the ode almost quaint, but he insists above all that man must now assume the degree of responsibility that accords with his vast powers. Insofar as his exhortation to responsibility drives Jonas to a partial renewal of metaphysics, his position could be considered a retrieval of the Hegelian standpoint.

**Keywords:** Hegel; Heidegger; Jonas; Antigone; Ode to Man; philosophy; nature; being at home.

## I. Introduction

At the heart of Sophocles' *Antigone* lies the question, "What is the human?" The conflict between Antigone and Creon over whether to bury Polynices is a conflict over whether the divine law of the family or the political decree of the state determines who counts as human – who deserves to be treated even in death as more than merely natural.

The basis of the conflict between the divine law and the political law is therefore the inherent ambiguity of the human vis-à-vis nature. This ambiguity is expressed in the first stasimon of the play, the so-called „Ode to Man," which opens with the famous words:

πολλὰ τὰ δεινὰ κούδὲν ἀνθρώπου δεινότερον [πέλει].
*Many are the wonders, but nothing more wondrous than the human [abides]*.

In being *deinoteron*, the human being is at once both like and unlike other beings. He is marked out as distinct by exhibiting to a superlative degree the characteristic common to the class as a whole. The peculiar character of the human as *deinoteron* is thus expressed in terms of his always surpassing all other natural beings.

The ode thus presents the human without a natural home. He roams over land and sea, cultivating the earth and sailing the oceans; superior to all other living beings, he preys upon fish and fowl and beast alike, and what he does not hunt he tames, yoking the ox to his plow and the horse to bit and bridle (Sophocles 1994, lines 335–355). With speech and thought, he constructs not only physical shelter from wind and rain but gives order to himself by attempting to limit his own daring through law and custom (Ibid., lines 355–358). Yet despite this inventiveness that secures mastery over all other natural beings, man remains subject to death's dominion. All-resourceful (*pantoporos*), he is resourceless (*aporos*) in the face of mortality – the one limit he cannot defy (Ibid., lines 359–361). The ultimate futility of technical mastery points to a deeper problem: the root of the need that drives man to subdue nature cannot be addressed through technical ingenuity. If the human difference lies in the propensity to break boundaries, then human freedom is equally the need for self-determination. The indeterminate being is driven by necessity to determine himself, but even self-determination proves unstable, as the impulse to transgress natural limits likewise leads to the trespassing of the city's laws (Ibid., lines 365–370). In his antagonism toward nature, man discovers his difference from nature, but in the absence of any higher identity this difference remains indeterminate – a negatively determined flight from death.

Given the beautiful precision with which Sophocles' ode states the question of the human being, it is no surprise that it has become a *locus classicus* in the philosophic tradition's reflection on the relationship between humanity and nature. The ode is given a prominent place not only in Hegel's *Naturphilosophie* but also in Martin Heidegger's *Introduction to Metaphysics* and Hans Jonas's *The Imperative of Responsibility*. The ode articulates the problem – taken up by Hegel, Heidegger, and Jonas – of that being for whom nature as such, and therewith his own nature, is a question. Our comparative study of their divergent interpretations of the ancient poet's depiction of human ambiguity amounts to a dialogue on the prospects for self-knowledge in our knowledge of nature, the relation between practical need and theoretical inquiry, and the limits of the mastery of nature and humanity's moral responsibility toward it.

Our exploration will proceed in three stages. In section one, we examine Hegel's attempt to delineate both the continuity and discontinuity of the human with the natural world as a response to the opposition of mind to nature operative in modern philosophy. We argue that through the appropriation of Aristotelian modes of reasoning, Hegel sublates the partial truth of our practical orientation to nature in the higher theoretical outlook of the philosophy of nature and thereby effects the rational reconciliation of spirit with nature that allows the human being to be at home in nature. Section two explores Heidegger's interpretation of the ode in his attempt to initiate another inception in the midst of the oblivion of being, which is supposed to have become dominant through the tradition that reaches its fulfillment with Hegel. From Heidegger's perspective, Hegel's scientific comprehension of the idea of nature overlooks the primordial experience of violent confrontation with the whole of beings that first gave rise to philosophic questioning. On this reading, Hegel perfects what is passed onto him without grasping its radically historical origins, promising a home for man in the homelessness of universal knowing. We turn in section three to Jonas's interpretation of the ode, which sheds light on the "altered nature of human action" in the technological age (Jonas 1984, 1). In response to this ethical "novum," Jonas appropriates aspects of Heidegger's critique of modern philosophy but resists Heidegger's radical historicism, since the historical novelty of our contemporary conditions reveals the moral responsibility that has always been implicit in human freedom. Jonas argues that this revelation of moral responsibility reopens the possibility of metaphysical speculation and points to a recovery and transformation of the Hegelian rational reconciliation with nature as the ground of our new ethical duties.

In bringing these three thinkers into dialogue with one another we aim to exhibit a kind of thinking that runs counter to the prevailing mode of rationality, which approaches the questions of nature, human nature, and humanity's relationship to nature in terms of a value-neutral science that consigns all distinctions between better and worse forms of human comportment to the natural world to the supposedly irrational realm of metaphysical speculation. Whether in the guise of a reductive, materialist natural science or in the guise of Weberian social science, contemporary thinking, even when striving to address the ecological crisis of the Anthropocene, remains largely beholden to an epistemology that equates knowledge with know-how, insight with rational control, and comprehension of the truth of nature with the power to transform nature. As we argue in our conclusion, the import of our inquiry for environmental philosophy today lies neither in a novel theoretical thesis about the ecological crisis and its spiritual causes and effects, nor in the elaboration of specific practical prescriptions, but in a demonstration of the need for an alternative form of thinking – one that the paper itself aims to evince. Indeed, despite the profound differences between Hegel, Heidegger, and Jonas, they themselves are models for such thinking; for they all emphatically reject the Baconian conceit to judge the veracity of thought and the value of thinking in terms of its practical applicability – as though the worth of inquiry were rightly measured by the extent of its contribution to the

production of novel works. Contra the Baconian vision of natural science as a machine for the production of works, whereby each researcher contributes to humanity's mastery over nature through an ever more specialized knowledge of nature's parts, the end of the thinking pursued in this essay is intrinsic to the activity of the inquiry itself – exhibiting the logic of internal as opposed to external purposiveness, infinite as opposed to finite teleology (Jonas 2001, 188–210). In sum, this essay is an exercise in a different kind of thinking and a different form of attending to what Hegel calls *die Sache selbst* than the instrumental rationality which today is so ubiquitous, dominant, and familiar [*bekannt*] as to remain unthought [*nicht erkannt*], and whose preoccupation with the effectual truth of things has obscured the possibility of a different, higher form of knowing, thinking, and attending (cf. Hegel 2018, 20; Heidegger 2002, 71–72).

## II. Hegel, the Logic of Nature, and the Natural Ground of *Geist*

Hegel frames his exposition [*Darstellung*] of the logic of nature – the systematic articulation of the multiple, multifaceted modes of natural being – with a reflection on the current disrepute of philosophy in general and the even lower regard for the philosophy of nature in particular, especially in comparison to the esteem enjoyed by the natural sciences. The ill repute stems from a confusion about the form of reason adequate to the philosophy of nature, which has "been transformed into an external formalism and perverted into a thoughtless instrument for superficial thinking and fanciful imagination" (Hegel 2004, 1). Although an adequate correction of this erroneous conception requires the full elaboration of a genuine philosophic science of nature, a preliminary clarity about the distinctive character of Hegel's theoretical inquiry can be gleaned from his prefatory introduction of the idea of a philosophy of nature, which stresses three distinctions that are also determinations of the domain of scientific inquiry that conceptually comprehending reason seeks to grasp.

First, Hegel distinguishes nature as a domain in its own right in relation to logic and spirit – that which precedes nature and that which proceeds from natural existence. As Hegel remarks, "the science of philosophy is a circle in which each member has an antecedent and a successor." In the *Encyclopedia*, the Philosophy of Nature is "only one circle in the whole," and therefore "the procession of nature from the eternal idea, its creation, the proof that there necessarily is a Nature, lies in the preceding exposition" of the absolute idea (Hegel 2004, 2). If the first presupposition of the philosophy of nature is the proof that nature exists, the complement to this beginning or *archē* is the culmination or *telos* of nature in that which transcends nature, namely, spirit. When the concept, which is only in-itself in nature, has become for-itself, then nature "has passed over into its truth" (Hegel 2004, 443). The idea of the philosophy of nature is thus determined by a double determinate negation that differentiates natural existence from the logic of being as such, on the one hand, and the logic of spirit, on the other – or, more generally stated,

from the ontological-logic of the whole and from the logic of the rational animal, that is, that part of the whole capable of self-knowledge, knowledge of nature, and knowledge of the whole.

Second, the philosophy of nature must also be distinguished from and understood in relation to natural science – to physics, natural history, and physiology. Although the true nature of this relation is one of deep affinity and even kinship, this kinship has been obscured by the manner of modern knowing, which, as Hegel argues in the Preface to the *Phenomenology*, is prone to a degree of abstract thinking and merely formal understanding unknown to the ancients (Hegel 2018, § 37). Hegel illustrates this difference between ancients and moderns by way of a contrast between Aristotle, for whom the philosophy of nature is not distinct from physics, and Wolff, who opposes physics to cosmology, which "though supposed to be a metaphysics of the world or of nature was confined to the wholly abstract categories of the understanding" (Hegel 2004, 3). Operating with an abstract idea of reason that presupposed an opposition between universal principles and empirical particulars, Wolff's philosophy is emblematic of the abstract understanding of the moderns, which opposes physics to philosophy and therefore fails to grasp that the philosophy of nature is "nothing but rational physics" (Hegel 2004, 2). The ostensible disjunctive opposition of *Naturwissenschaft* and *Naturphilosophie* thus proves to be a consequence of the prejudice of modern epistemology, which tends to oppose perception to thought, being to concept, experience to pure cognition, content to form. The truth of the matter is that "Physics and the Philosophy of Nature (…) are not distinguished from each other as perception and thought, but only by *the kind and manner of their thought*; they are both a thinking apprehension of Nature."

Third, there is the familiar opposition between the theoretical and the practical comportments to nature that is a logical determination of the idea and that thus proves integral to answering the question, "what is nature?" (Hegel 2010, 290–291). To grasp [*auffassen*] the idea of nature concretely – to cognize its differentiated determinations [*verschiedene Bestimmungen*] and then to grasp together [*zusammenfassen*] these differentiated determinations as logical moments of an organic totality – requires ascending from the opposition of the theoretical and practical ways of considering nature [*Betrachtungsweisen der Natur*] to a higher standpoint that, by incorporating "what is peculiar to the practical relationship to nature," unites the theoretical with the practical in an integrated unity (Hegel 2010, 4).

Each of these three determinations of the idea of the philosophy of nature turns on the relation of *self-conscious Dasein* to *natural Dasein*, of spirit to nature or, as Hegel's philosophy seeks to demonstrate, reason for-itself to reason in-itself. Accordingly, a true apprehension of nature requires apprehending the nature of that being that asks about nature. For Hegel, the nature of the human is at stake in our knowledge of nature. Consequently, the first question of the philosophy of nature, namely, "what is nature?", is inseparable from the question of how nature is *for* the human – how nature presents to

and is appropriated by the human both practically and theoretically. It is in the context of articulating the logic at work both within and between these two basic *Betrachtungsweisen der Natur* that Hegel turns to Sophocles' choral ode to illuminate the ambiguous relation of the human to the natural world – a relation that reflects the "amphibious" character of the human as belonging to two worlds – nature and spirit – on account of being aware of being a particular natural Dasein (Hegel 1975, 54 and 80).

Before considering more closely Hegel's interpretation of the ode, however, a further elaboration of the difference between ancients and moderns is instructive. Aligning his approach with an Aristotelian mode of philosophizing, Hegel states, "Nature confronts us as a riddle and a problem, whose solution both attracts and repels us: attracts us, because spirit is presaged in nature; repels us, because nature seems an alien existence, in which spirit does not find itself. That is why Aristotle said that philosophy started from wonder" (Hegel 2004, 3). Wonder is provoked by the convergence of familiarity and strangeness; to wonder at the world is to see it simultaneously as that which is like and unlike, commensurate with and yet alien to the rationality that defines the human. According to Hegel, following Aristotle, it is because the natural world presents itself as partially intelligible that our experience of its incomprehensibility or our lack of understanding can provoke the wonder that spurs further inquiry; that is, the experience of *aporia* is predicated on a partial knowing that encounters a phenomenon that defies one's formerly adequate rubric for understanding. To come up short, to literally (as the etymology implies) be without a way forward, does not lead to skepticism, but to the revision of one's conception of nature. The experience of wonder in response to *aporia* leads to the expansion of one's horizon and the cognizance of the limitations of a particular conceptual determination. To progress in knowledge of nature is possible only because self-knowledge is possible and, on the basis of such self-knowledge, the revision of one's presuppositions about the being of nature. Such an approach to nature is predicated on a belief in the intelligibility of nature or the notion that reason is sovereign and operative not only in us but also in that which we seek to know, and, consequently, that our knowledge of nature requires surrendering to the immanent logic at work in *die Sache selbst* (Hegel 2010, 57; cf. Hegel 2018, § 53, §§ 56–58). To grasp the idea of nature, and thus to answer the question "what is nature?" demands that we give ourselves over to the logos of nature (Ferrarin 2019, 12–15, 195–199).

This deference of the human mind to the *nous* operative in the world is, however, wholly repudiated by the twin principal progenitors of modern natural science, who seek to establish new foundations for our knowledge of nature – foundations that secure the certainty of our knowing and the autonomy of human reason – and thereby "to lay the foundation (…) of human utility and power" (Bacon 1999, 75). The rejection of Aristotle and the depreciation of wonder in the thought of Francis Bacon and René Descartes are indicative of a novel method of inquiry intended to compel nature to reveal her secrets (Bacon 1999, 82, 130, 134 f.). As Descartes remarks in *The Passions of the Soul,* though

wonder "disposes us to the acquisition of the sciences," after acquiring such knowledge we ought "to deliver ourselves from it as much as possible" (Descartes 1985, 355). In place of wonder, modern natural science promises mastery over nature, wherein our knowledge of nature is confirmed by our ability to manipulate nature, since as Bacon states in the *New Organon* (i.e., the new tool for investigating nature intended to supplant the Aristotelian organon), "Human knowledge and human power meet in one" (Bacon 1999, 90). The end of such mastery is not only the myriad practical goods – above all the good of health – secured by the "invention of an infinity of artifices" (Descartes 1985, 143, translation modified), but also the restitution of the mind's sovereignty over nature, wherein nature serves our purposes and "the goal of the sciences" is to endow human life with "new powers" secured by "new works" (Bacon 1999, 117).

Implicit in Hegel's elaboration of a philosophy of nature is a comprehensive critique of modern natural science – of its epistemic grounds, which remain at the level of the understanding, of the abstract metaphysics underlying its mechanistic and mathematical physics, which reduces qualitative distinctions to quantitative difference, and of the priority of the practical in its reflections on natural phenomena, which discovers only external finite relations in nature, just as the outlook as a whole presumes a merely external relation of spirit to nature (Hegel 2004, 10–13, 38–42; cf. Hegel 2009, 89 and 92). For Hegel, the answer of modern natural science to the question "What is nature?" precludes the possibility of a genuine philosophy of nature and therewith the rational reconciliation of nature and spirit that is its determination [*Bestimmung*] and telos [*Zweck*]. Only if the partial truth of modern physics is not the final truth of nature is a philosophy of nature possible. Rather than begin with the historical opposition of ancients and moderns, however, Hegel's elaboration of the speculative perspective capable of comprehending that "nature is *in itself* a living whole" (Hegel 2004, 24) begins from the fundamental (because logically necessary) duality of willing and knowing, or practice and theory, in order to demonstrate the necessity of ascending from the finite perspective of the former to the infinite contemplative posture of the latter.

Hegel's interpretation of the ode illustrates why the need to ascend to the philosophic perspective from the ordinary outlook of natural consciousness is inherent in spirit's relation to nature – a relation conditioned throughout by knowledge of mortality. As the dialectic of §§ 245–246 demonstrates, although the rational animal employs artifice to secure its natural existence, to be fully rational requires transcending natural necessity in knowledge of nature's necessity (cf. §§ 374–376).

Our practical comportment to nature "is determined in general by desire [*Begierde*], which is self-seeking," and by need [*Bedürfnis*] which impels us to take a utilitarian approach to nature, wherein we relate to nature as the raw material for the satisfaction of our purposes, in the course of which nature is worn out [*abreiben*], worn down [*aufreiben*], and ultimately annihilated [*vernichten*]. Driven by a fundamental neediness [*Not*] to discover "an endless variety of ways of using and mastering nature,"

the *deinoteron* character of the human is disclosed in humanity's antagonistic struggle against the "forces nature develops and lets loose against man." In combat with nature, man uses nature against the onslaught of nature "by sheltering behind other products of nature, and letting these suffer her destructive attacks" (Hegel 2004, 5).

Though his limitless creativity allows man to triumph over every particular obstacle to his welfare or discrete threat to his security, "nature herself, however, in her universal aspect he cannot overcome in this way, nor can he turn her to his own purposes." The satisfaction attained through the negation of nature in its particularity proves fleeting – engendering a form of bad infinity, wherein man's restless activity remains negatively determined by nature's universal negativity. The ostensible supremacy of spirit to nature proves illusory as every victory is but the prelude to further struggle; for despite the great "cunning of his reason," man remains *amechanon* in the confrontation with death. Relating to nature in its finite particularity, man remains bound to the finite. Rather than achieve his liberation from nature's dominion, he remains subject to natural necessity – the fear of death remains the chain from which he cannot break free.

Thus, the ode depicts the tragic contradiction at the heart of our practical relation to nature: the need that drives us to master nature cannot be satisfied [*befriedigt*] through such mastery. We may for a time forestall the demise of our natural existence, but the overarching end of the practical approach to nature – to secure spirit's self-sufficiency [*Selbständigkeit*] – cannot be attained by treating nature as a means to our finite purposes.

Nevertheless, to see nature from the practical standpoint, wherein nature is considered as something external to and opposed to man and thus as having its being in being-for the purposes of man, does disclose the truth that "nature does not itself contain the absolute final end." The end-relation [*Zweckverhältnis*] of nature to spirit, however, "demands for itself a deeper mode of treatment than that appropriate to external and finite relationships, namely, the mode of treatment of the concept, which in its own general nature is immanent, and therefore is immanent in nature as such." The limits of the practical approach prove coextensive with the limits of external or finite purposiveness, which not only disregards the self-subsistent integrity of natural beings but likewise considers spirit only as "finite spirit caught up in natural ends." For spirit to relate to nature "in her universal aspect" requires spirit to pursue ends beyond mere self-preservation (Hegel 2004, 4–5).

The resolution of the perennial problem disclosed in Hegel's interpretation of the ode requires a threefold transfiguration of the relation of the human to nature – of what is known, how it is known, and the ground of such knowing – each facet of which employs the logic of immanent teleology, wherein the oppositions of means and ends, form and content, particular and universal are sublated in the conceptual relation of inner difference or identity-in-difference (Hegel 2010, 276–279). Hegel's adumbration of the perspective capable of grasping the true idea of nature proves to be a further elaboration of the aforementioned threefold preliminary determination of the philosophy of nature

as simultaneously spirit's highest relation [*Verhältnis*] to nature, spirit's knowledge of its own natural ground, and the fulfillment of nature in spirit or the discovery that the truth of nature is spirit. The threefold dialectical ascent thus involves:

(1) Clarifying the conceptual relation between physics and *Naturphilosophie* as two theoretical perspectives on nature in its universality, wherein the former knows the universal only in opposition to finite particulars as their "inner truth," while the latter knows the universal as "the concept, which contains specific differences as moments of an immanent self-moving unity" (Hegel 2010, 12).

(2) Sublating the opposition of the practical and theoretical *Betrachtungsweisen der Natur* in a higher form of theoretical comprehension wherein the truth disclosed in our practical relation to nature, namely, that "particular things are nothing in themselves," is incorporated into a philosophical idealism that knows the truth of things in their immediate singularity (i.e., as sensuous things), to be mere appearance – a moment of the self-determination of the concept – and thus knows their dissolution to be the effect of their *own* immanent activity (Hegel 2010, 9, 20, 385, 441 f.).

(3) Adumbrating nature's place within the whole as the mediating ground of logic and spirit, wherein the comprehension of nature in its universal aspect by spirit in its universality is not only "an end in itself" for spirit insofar as such knowing alone truly satisfies the desire of the human for "unity of himself with himself" through the negation of otherness, but is also the fulfillment of nature itself as a whole insofar as such knowing is nature's own relation to itself (Hegel 2010, 7 f. and 12 f.). Nature's fulfillment is thus nature's self-negation, and the self-sublation of the absolute idea in its externality is its return to itself (Hegel 2010, 443–445).

In knowing philosophical universality "which fulfills itself, and which, in its diamantine identity, also contains difference," the philosophy of nature knows "the true infinite [which] is the unity of itself and the finite." In grasping the concrete universal as the "purposive activity" that Aristotle called "the *nature of a thing,*" this consummate theoretical orientation knows the concept to be at work in nature and, by grasping "nature as free in her own peculiar vital activity," knows that "nature is in itself reason" (Hegel 2010, 12 and 6; cf. Hegel 2010, 277 and Hegel 2019, § 22, § 55). Spirit, thereby, "finds in nature its own essence" and effects the reconciliation of spirit and nature: the self-knowledge of spirit in nature is equally "the liberation of spirit from nature" and "the liberation of nature," since "it is through spirit that reason as such first emerges from nature into existence" (Hegel 2004, 13). To know that "spirit is the *truth* of nature" is to demonstrate that the circle of nature, which taken by itself is a self-contained, self-sufficient whole, constitutes a part of a larger whole – a moment in the logical articulation of the absolute idea (Hegel 2007, 9, translation modified; cf. Fackenheim 1967, 83–106). The philosophy of nature thus not only accounts for how a part of the whole could know

the whole but also demonstrates that such knowing is an integral moment of the whole (cf. Hegel 2019, § 20, § 25, § 47).

Hegel's interpretation of the *Ode to Man* illustrates how and why implicit in the contradiction inherent in our practical orientation to nature is the dialectical ascent to the rational reconciliation of the human and nature in our conceptual comprehension of reason at work in nature. Starting from what is most immediate for us as natural beings, Hegel demonstrates that the true purpose of our rational capacity cannot be the technological mastery of nature. The truth of the *deinoteron* is the self-transcendence of man's finite particularity in the universal knowing of the true infinity of the absolute idea. Hegel's philosophy of nature is thus the highest response to the awareness of death that distinguishes spirit from nature and that drives man to master nature for the sake of self-preservation. The rational reconciliation that enables spirit to know itself in knowing nature is the reconciliation of the human with the natural ground of his own individuated being. For Hegel, we are at home with ourselves in knowing the universal as "the inner being of nature" because in such knowing we simultaneously know ourselves to be in our essence not finite particulars but universal reason. Knowledge of nature allows one to be at home in the world because at its highest it allows one to reconcile oneself to one's own finitude, to the natural necessity of death. In this manner, the philosophy of nature as a part of philosophy in general might be said to be, following Socrates, "the practice of dying and being dead" (Plato, *Phaedo*, 64a).

## III. Heidegger, the Violence of Being, and the Unhomeliness of the Human

It is far from obvious why a lecture course entitled *Introduction to Metaphysics* should be concerned with the interpretation of a Greek tragedy. Our first task, then, is to determine the broader context in which Heidegger sees fit to attend to Sophocles' ode in these lectures. Familiarity with this context will also shed light on Heidegger's understanding of himself in relation to Hegel. On that basis, we will then aim to assume the proper vantage from which to indicate the implicit confrontation between these two thinkers as it arises in Heidegger's interpretation of the ode. A preliminary remark may suffice here to anticipate the basic character of this confrontation: whereas Hegel interprets the ode as an illustration of man's practical relation to nature in general, Heidegger discerns in the ode the "poetic projection" of the inceptual Greek understanding of the being of beings and hence also of the human being, in which "the authentic *Greek* definition of the human" is first brought to language (Heidegger 2014, 163 and 168). Accordingly, the ode in no way arises for Heidegger in the service of illustrating any universal relation to a timeless object called "nature." It therefore becomes necessary to ask in the first place why, according to Heidegger, we should concern ourselves at all with what the Greeks alone are supposed to have thought.

What is at stake, according to Heidegger, is "the spiritual fate of the West" (Heidegger 2014, 41). We must examine how this could be so, for Heidegger's thought is unintelligible without some sense of the urgency that drives his questioning. The lectures begin by asking abruptly what Heidegger deems "the fundamental question of metaphysics": "Why are there beings at all instead of nothing?" (Ibid., 1). This question, however, which is initially directed to beings – asking about the ground of this or that being – cannot in the end evade the question about the *being* of those beings, for it asks "about the ground for the fact that beings *are*, and are what they *are*" (Ibid., 36). Accordingly, serious reflection on the fundamental question forces us to ask a "prior question": "How does it stand with being?" Yet unlike beings, which are all around us, being seems to be "undiscoverable, almost like nothing, or in the end *entirely* so" (Ibid., 39). "It" therefore "stands with being" for us in such a way that we appear to be at a complete loss when it comes to the "meaning of being." And so our answers to the fundamental question remain superficial, owing to "the fact" that being, in the words of Nietzsche, is a "vapor" and an "error" among us (Ibid., 40 and 55). If being for us turns out to be nothing, then the beings that undoubtedly surround us seem to be drained of their being: in the midst of our cluelessness or indifference about being, beings, too, "waver" and seem to slide into nothingness (Ibid., 32). We therefore find ourselves in a condition of testiness and anxiety, since in our clinging to beings "we are always trying to defend and guard ourselves against the impertinence of saying that all beings *are not*," even as, in our proclivity to pass over being, we secure for ourselves this fitfully defensive stance in relation to beings, which remain at once nearest to us and yet invaded, as it were, by some alien lack (Ibid., 39).

But in this brief account of the relationship between the fundamental and prior questions, we seem to have said nothing about "the spiritual fate of the West." In fact, however, this merely seems to be so. For according to Heidegger, "the asking of this prior question, and thereby the asking of the fundamental question of metaphysics, is a historical questioning through and through" (Ibid., 47). Why are *we* so clueless or indifferent when it comes to the question of the meaning of being? Has this question always been perceived as empty, hence as no real question at all? Heidegger answers *this* question in the negative, attributing our peculiar helplessness in the face of the question of being to "an increasingly rigid *oblivion of being*" (Ibid., 28). In his clearest answer to the "prior question," Heidegger speaks of the oblivion in this way: "The question of how it stands with being also proves to be the question of how it stands with our Dasein in history, of whether we *stand* in history or merely stagger. Seen metaphysically, *we are staggering*" (Ibid., 226). This oblivion of being in which we are ensnared unfolds *through* history and manifests itself in our "staggering" *in* history: "Everywhere we are underway amid beings, and yet we no longer know how it stands with being. We do not even know that we no longer know it." The correlative phenomenon of this staggering oblivion is that "on the earth, all over it, a darkening of the world is happening," whose signs are these: "the flight of the gods, the destruction of the earth, the reduction of human beings to a mass,

the preeminence of the mediocre" (Ibid., 49). Content merely "to be familiar with beings and to secure mastery over them," we are also caught in a "hopeless frenzy of unchained technology" that disguises this darkening as progress (Ibid., 35 and 41). Insofar as the spiritual world of the human is darkening "all over the earth," the initially outrageous assertion that the "spiritual fate of the West" is at stake in Heidegger's questioning now proves to be *an understatement*. This is the broader context of Heidegger's turn to the ode.

But we do not yet see how Hegel is related to this "darkening," nor how interpreting Sophocles could be a sensible, let alone necessary, response to it. We notice that Heidegger says that "we *no longer* know how it stands with being." We may then begin to wonder who is to blame for this gross negligence. Who was it, then, who first forgot being and cast humanity into a woeful world-darkening? Hegel, perhaps, or Plato? These are the wrong questions. In these lectures, Heidegger poses his guiding thought first in the form of a rhetorical question:

> What if the fault is not our own, we of today, nor that of our immediate or most distant forebears, but rather is based in a happening that runs through Western history from the inception onwards, a happening that the eyes of all historians will never reach, but which nevertheless happens – formerly, today, and in the future? (Heidegger 2014, 41).

The oblivion is a "happening" [*Geschehnis*] as old as Western history. In a certain sense, it *is* Western history [*Geschichte*]. To understand this happening, one must inquire into its "inception." The inception is the beginning of "questioning about beings as such and as a whole," which begins "in the age of the first and definitive unfolding of Western philosophy among the Greeks," above all in the thinking of Parmenides and Heraclitus (Ibid., 15). Yet this inception, though decisive for the West, "was not preserved" as such (Ibid., 194). Instead, there was a "falling-away" into the "inceptive end" of the thought of Plato and Aristotle: "The philosophy of the Greeks attains dominance in the West not on the basis of its originary inception, but on the basis of the inceptive end, which in Hegel is brought to fulfillment in a great and final manner" (Ibid., 210 f.). Yet this falling-away is not due to a misstep on the part of the thinkers of the inceptive end but lies rather in "the essence of the inception itself," for "the inception that initiates can never directly preserve its initiating," since this is possible *only* "by retrieving it more originally" (Ibid., 213). Just as one cannot truly preserve a Greek *kylix* by securing it behind glass and removing it from all laughter and revelry, one cannot preserve the inception by collecting its sayings as "fragments" and debating their logical consistency in academies. This preservation can instead occur only as the birth of "the other inception," which entails "all the strangeness, darkness, insecurity that a genuine inception brings with it" (Ibid., 43). Accordingly, Heidegger's turn to the Greeks is not so much a turn as a "leap" into the origin, a "leap away from all the previous safety of [our] Dasein" (Ibid., 7). Provided that it is posed seriously enough to entail the "prior question," "the fundamental question" *is* this leap, which, by "restoring rootedness to historical Dasein," stands athwart the world-darkening (Ibid.,

44). Accordingly, Heidegger's leap into the origin of Greek antiquity has no interest in some point in the past *wie es eigentlich **gewesen** ist*, acquiring knowledge of a worldview that is now dead and gone. It is rather concerned with *wie es **eigentlich** gewesen **ist***, how it authentically "stands with being" for us, and how this "standing" and our "staggering" are presaged in the most primordial utterances of Western thinking and poetizing.

Heidegger's interpretation of the ode arises in his discussion of the third of four distinctions that unfold in history, which – in their most extreme development – amount to the "restriction of being" signifying the "maximum in confusion and deracination" now at work in the world-darkening (Ibid., 221). Heidegger devotes the most attention to this third distinction, "Being and Thinking" (Ibid., 128), which he identifies repeatedly as the most important and most questionable – hence "the real target of our attack": "The entire Western tradition and conception of being, and accordingly the fundamental relation to being that is still dominant today, is summed up in the title *being and thinking*" (Ibid., 129 and 228). In short, it is chiefly through the unfolding of this distinction that *logos* ("originary gatheredness") became assertion (hence "logic"), that being (originally, *physis*) became *idea*, and that truth (originally, *aletheia*) became correctness (Ibid., 200–213). In the first two of these three domains, Heidegger explicitly identifies the thought of Hegel as the fulfillment of these trajectories of falling-away (Ibid., 134; 200). At the same time, he is at pains to insist that Greek thinking in the inception, especially that of Parmenides (even when this seems similar to Hegel's idealism), is "the opposite" of any notion of "a subject that absorbs everything objective" (Ibid., 155). Instead, his gloss on the Parmenidean *Ursatz* on the sameness of thinking and being is: "being holds sway [*waltet*], but because it holds sway and insofar as it holds sway and appears, apprehending *also* necessarily happens *along with* appearance." Accordingly, apprehending is not in the first place the preeminent faculty that the human being "has," whose perfect activity is identical to the being of what is, inasmuch as this faculty alone provides the measure for what is; instead, "apprehending is the happening [*Geschehnis*] that has the human being," through which the latter first "steps into history [*Geschichte*]," viz., *is*, as "questioning-historical" (Ibid., 157 and 160). Despite this elaboration, however, Heidegger expects that we will continue to see in Parmenides' saying an anticipation of Hegel's overcoming of the subject-object division. Most proximately, therefore, it is *for this reason*, viz., to exhibit the radical separation between Parmenides and Hegel, that Heidegger turns to the ode as testimony of "something positive from Greek Dasein and being," the space for which is first "opened up" by the thinking of Parmenides' saying (Ibid., 160).

The "authentic *Greek* definition of the human" is *to deinotaton*, "the uncanniest" [*das Unheimlichste*], the most unhomely. But the human is the most unhomely only because he is "the most violent [*das Gewaltigste*]: violence-doing [*Gewalt-tätig*] in the midst of the overwhelming [*Überwältigenden*]" (Ibid., 167 f.). Since Heidegger clearly intends these words to be understood within a single nexus of meanings whose common root is evident in the verb *walten*, they do not readily admit of translation. We must hear in them first of

all a coursing, surging force that prevails through, lords over, and thereby determines all that lies within its domain [*walten*], whose gathered instantiations and effects [*Gewalt*], even if not simply to be condemned, are nevertheless domineering and for the most part unwelcome, hence generally violent and violating [*gewalt-tätig*]. What prevails in this manner to such a degree that it sweeps away whatever it encounters as if it were nothing is the overwhelming that always overpowers [*das Überwältigende*]. Heidegger often stresses that this power that always overpowers is what is eminent in this nexus of meanings by granting it the distinction of the base form: *das überwältigende Walten*, which the Greeks elsewhere called *physis* (Ibid., 16). The human, therefore, is the most unhomely because he opposes and must oppose the essentially overpowering power with his own limited acts of prevailing, ruling, and determining; to this end, man puts *techne* to work – the ancient progenitor of our "technology" – which Heidegger describes as "violence-doing" in the form of a "knowing" that is "constantly looking out beyond what, in each case, is already present at hand" (Ibid., 177). Knowing so conceived is essentially *transgressive* and thus never finds a limit where it can come to rest; the higher the peak of knowing, the farther must the knower prepare to fall when he can no longer climb. This knowing human, as violence-doer, suffers and must suffer being knocked out of what is homely for him – not by accident or on account of vain hubris, but because he must "step out beyond" the "limits" of the homely *if there is even to be a home in the first place*: "When one is put out of the home in this way, the home first discloses itself as such" (Ibid., 186). In venturing beyond the home that his daring first opens up for others, the most unhomely one challenges the whole of beings whose very essence it is to defeat and crush him. This human who is most fully human embraces his own inevitable "downfall" in this confrontation with the singularly indomitable as "the deepest and broadest yes to the overwhelming" (Ibid., 182). This aspect of doomed confrontation thoroughly pervades Heidegger's interpretation of the ode and leads him to devote special attention to the sharp antitheses in lines 360 [*pantoporos aporos*] and 370 [*hypsipolis apolis*]. In both instances, the human – that being who does violence against what is excessively violent – precisely by doing what he must do (seeking out myriad ways and thus rising high in the site, *polis*, where all these ways cross), *nevertheless* and yet precisely *therefore* finds "no way out" amidst beings, "loses the site" of his being-human, and comes to nothing, *ep' ouden erchetai* (Ibid., 169 f.).

Instead of proceeding to Heidegger's discussion of why Parmenides's apprehending must be conceived in accordance with the ode as an "act of violence," we may now hazard a Heideggerian critique of Hegel's discussion of the ode (Ibid., 187). As noted above, Hegel cites Sophocles' ode in order to illustrate the human's practical relation to nature. This relation is defined by the "mastery of nature": the human being ranges through nature negating its particulars as negativities and thus recurrently attains for himself a positive "satisfaction" (Hegel 2004, 5). The ode is construed as proof of the human's persistent cunning of reason, whereby he triumphs over every obstacle and always secures for himself

the feeling only of himself. The determination of nature as the negative to be negated by man qua finite *Geist* also characterizes Hegel's philosophic relation to nature, whereby infinite *Geist* overcomes the opposition between subject and object, discovering a home for man in the dimension of universality that man and nature share: "I in my essence is the Concept, the Same itself with itself, [the Same] Going-hence-through everything, which, in that it holds fast to the mastery over the particular differences, is the Universal returning into itself" (Ibid., 13, translation modified). In my essence as absolute knower, I pervade everything as master of the differences that inhere in me and in nature alike; as universal reason, I overcome every opposition by overcoming opposition as such. In this manner, I find theoretical satisfaction. I hold sway as the overwhelming, overriding Concept: I am *das überwältigende Walten*, I am in my essence *physis*. Surely this is the antipode of Heidegger's interpretation of the Sophoclean determination of man as the most unhomely. Here there is no longer violence, for there is no longer opposition; in his essence, the human is everywhere at home. But perhaps to be everywhere at home is never truly to be at home anywhere. Might this homelessness that is everywhere at home be the ultimate attestation and confirmation of the essential unhomeliness of the human?

## IV. Hans Jonas, the Technological Novum, and the Ethics of Responsibility

Jonas begins *The Imperative of Responsibility* with an appeal to Sophocles' ode, an "ancient voice on man's power and deeds" (Jonas 1984, 2), which highlights by comparison the novelty of human action in the modern technological age. Granted, the ode strikes "a technological note" as it presents man's "violent and violating irruption into the cosmic order" through a "restless cleverness," even as it also presents man's building of "the home for his very humanity, the artifact of the city" through speech, thought, and social sentiment (Ibid.). *Techne* and *nomos* arise together and point to the wondrous nature of man. Accordingly, Jonas writes that "[t]he raping of nature and the civilizing of man go hand in hand" (Ibid.). But one could not mistake Sophocles' description of man's daring for "immodest bragging" about man's superiority to nature (Ibid., 3). The necessary condition of Sophocles' praise of man's creative ingenuity is the overwhelming power of nature which agelessly remains self-same through countless generations of mortal men, who take the stability of her "enduring patience" for granted (Ibid.). Assured of nature's permanence, there is no sense that human cleverness might aspire to the mastery of nature nor any indication that the artifice of ancient man is "only a beginning" to be continually superseded by future generations (Ibid.). Nature's reliable regularity was the enveloping context for the domain determined by the city's *nomos*, which existed between "the abiding and the changing: the abiding was Nature, the changing his own works" (Ibid., 2). The cosmic order provided the enduring conditions for the creation of the *polis* and the ethical sphere, which is characterized by "an entropy of sorts," as all

cities, families, and empires rise and fall (Ibid., 4). While man needed to treat nature only with cleverness, his actions with and toward other men were regulated by notions of good and evil, noble and base, just and unjust. All traditional notions of ethics presuppose that human action in the strict sense occurs within the circumscribed realm of the polis.

Jonas claims that this chorus would "have to read differently now" (Ibid., 6). Sophocles' ode brings to light "the altered nature of human action" by showing how our relationship to nature has changed. Modern technology has introduced an unprecedented kind of action – novel in scale, scope, and character – defying all traditional ethical frameworks. Our actions are not only incomparably more effective, capable of causing irreparable damage to local ecologies, they also harness the powers of nature in order to act into nature. *Techne*'s unrestrained expansion and domination of the natural world has undermined the ancient distinction between the realms of *physis* and *nomos*. We have endangered the enduring patience of nature and now must rethink moral responsibility in light of our novel power to radically and permanently effect nature. Jonas raises the question of whether an ethics can be discovered that can rein in the technological drive for mastery, but the intensity of our need for moral guidance is no guarantee of discovering an ethics of action that can rule the technological drive.

Jonas's interpretation is thus intended to illuminate the radical transformation in the basic structural conditions of human action, from whence Jonas derives the fundamental premise of his ethical and philosophical project: "Nature as a human responsibility is surely a novum to be pondered in ethical theory" (Ibid., 7). Our power has brought nature into the realm of the changing affairs of human action. We must be concerned for the future of what was once assumed to be permanent, and so must extend the temporal horizon of our notion of responsibility. The sheer efficacy of modern action so outstrips our capacity for rational foresight as to preclude the exercise of prudential judgment about the potential costs of the unintended consequences of technological action. Its overwhelming power extends our concern to the "global condition of human life and the far-off future," demanding the discovery of new duties and rights found in no "previous ethics and metaphysics" (Ibid., 8).

The conclusion Jonas derives from his interpretation of the ode encapsulates the central insight that serves as the starting point for three interwoven investigations concerning the ethical novum: (1) What precisely is different about human action in the present epoch? (2) How did this historical novum come about? (3) What ought we to do in light of the novelty of our situation? Only after answering the first two questions can Jonas discover the grounds on which we can answer the third.

Jonas thus undertakes a genealogical investigation of modern science to understand both the altered nature of human action and how man has arrived at the technological crisis. This propaedeutic genealogy aims to think through the limits of modern metaphysics and ethics and open up the possibility of a recovery of speculative metaphysics in the technological age. Even while Jonas pursues ends at odds with Heidegger's critique of

modernity, he borrows much from his analysis of its underlying self-conception. According to Jonas, the ultimate consequence of Bacon's subordination of theory to praxis is that modern science has itself become a technology wherein theoretical inquiry is not only in service of practical goods but is itself a form of action that continually transforms the human situation by constantly intervening in the conditions of subsequent actions. The modern project of mastering nature is characterized by an ever-accelerating "dynamism" that leads to "the indefinitely cumulative propagation of its effects" (Ibid., 23). "Dynamism," according to Jonas, "is the signature of modernity" and "our fate" (Ibid., 119).

Jonas's deepest critique of modern science is that it rests on an erroneous anthropology that understands man only with respect to what is lower than man. Accordingly, "man-the-knower apprehends man-*qua*-lower-than-himself"; this outlook is not only in principle skeptical of any higher motives for moral action but it also undermines the very conditions of the scientific project, namely, the "freedom of inquiry and [the] openness to reason" (Jonas 2001, 196). The method of modern science precludes the possibility of the scientist's self-knowledge. The modern scientific framework above all denies an objective basis for human values. Indeed, the charitable aims of modern science are rooted in sources outside the scientific framework, even as these aims are transformed to conform to the conception of man as lower than man. The cumulative effect of these epistemological shortcomings is the temptation to conceive of man as an "object" of technology: for the relief of man's estate, man himself must be transformed. With the advent of genetic engineering, we are on the verge of changing human nature in light of a partial understanding of the human. Modern scientists become the new image makers of humanity, but in the absence of an adequate "idea of man," they risk permanently dehumanizing the human.

The spiritual crisis of the present moment is, however, equally the revelation of a profound moral and metaphysical truth: the ethical novum of the technological age discloses the primacy of human freedom and the grounds of a philosophical anthropology – and by extension a view of nature – antithetical to the reductive debunking outlook of modern science. To recognize our responsibility for nature is already an act of human freedom. The ethical novum is therefore also implicitly a rejection of Heidegger's history of being and its collapse of the distinction between faith and reason. Jonas notes that "faith in revealed truth" can supply the "foundation for metaphysics, but it is not there on command, and not even the strongest argument of need permits resorting to a faith that is absent or discredited" (Jonas 1984, 45). Reason, on the other hand, "can be set to work upon demand" (Ibid.). Jonas seems to have the decline of religious faith in the West in mind, but this practical critique of "faith in revealed truth" applies just as well to Heidegger's resigned statement that "only a god can save us." The situation is urgent and now is not the time to lose faith in the efficacy of human freedom.

In appealing to the high rather than the low in man, the very question of human responsibility prompts one to wonder whether "natural science may not tell the whole

story about Nature" (Ibid., 8). The practical imperative of finding "an ethics for the technological age" leads to a renewal of precisely the sort of metaphysical inquiry that Heidegger believes to have come to an end. The first imperative of responsibility, that "there be a mankind," raises the question of "*why* there should be men"; only an answer to this question can tell us "*how* they should be" (Ibid., 43). The question of why there should be men means that Jonas "cannot avoid taking the imprudent plunge into ontology," which means that the "worldly philosopher struggling for an ethics" must allow for "the possibility of a rational metaphysics" (Ibid., 45). Gaining clarity on what we owe to each other and to nature requires pursuing the very questions that lie at the heart of Sophocles' Ode to Man: what is the human, and what is our place within the whole?

Thus, Jonas's appropriation of the Heideggerian critique of modern technology aims to think through the historical process culminating in the urgent awareness of the theoretical and practical limits of modern technology. However, Jonas does not trace the origins of the current crisis to the original turning away from Being in Plato and Aristotle, but to the modern project of mastery over nature. Modern science has obscured what is highest in man – the freedom of rational inquiry and the freedom entailed in moral responsibility. The imperatives of the ethical novum reopen the question of man, which, in turn, reopens the question of being. The poverty of modern ethics in the face of the historical novum prompts Jonas to undertake metaphysical examinations that not only defy the modern "dogma" that "there is no metaphysical truth," but also challenge the modern prohibition against deriving an "ought" from being (Ibid., 44). From the perspective of these modern dogmas, Jonas may seem to return to prideful conceptions of man's place within nature and of philosophy, understood as the examination of unanswerable questions. But Jonas argues that the apparent theoretical humility of modern natural science obscures the "Promethean immodesty" of its practical aims (Jonas 1984, 201). Jonas's metaphysical speculations are, in fact, emblematic of "a new kind of humility" before the awesome power of modern technology – a humility that recognizes that, in the words of another interpretation of the choral ode, "man's competence always outstrips his self-knowledge" (Ibid., 22; Benardete 1999, 40).

Jonas's theoretical inquiries begin from an epistemological premise that counteracts the modern epistemology of suspicion. He writes: "What reality is must be gathered from its testimony, and naturally from that which tells the most – from the most manifest, not the most hidden; the most developed, not the least developed; the fullest and not the poorest – hence from the highest that is accessible to us" (Jonas 1984, 69 f.). By means of a phenomenological study of metabolism (defined conceptually as the enduring freedom of form over matter), Jonas argues that the purposiveness of the organism – so often dismissed by the modern mind – in fact makes manifest the fundamental character of the whole. In contrast to the modern scientific perspective, which takes inanimate matter as the fundamental phenomenon, Jonas prioritizes the emergence of life and mind from matter as the key to the comprehension of the whole. Human reason as the pinnacle of

this metabolic process is the most manifest, developed, fullest, and highest example of the possibilities inherent in nature; it is the most telling fact about "what reality is."

The purposiveness inherent in metabolism is evidence of an "ought" rooted in an "is." Inherent in the nature of life is the positing of the value of life over non-life. When the idea of life as the maintenance of form through change is applied to man and his concerns, what is at stake is not simply the metabolic life of the human animal but the preservation of what is highest in the "idea of man," which is threatened by technological power and obscured by the latent scientific anthropology (Ibid., 43). We have a responsibility to preserve this idea and its "embodiment in the world." The ethics of responsibility thus rests on Jonas's philosophy of nature, which reintroduces a hierarchy of beings whose pinnacle is man. In this way, Jonas replaces the "ruthless anthropocentrism which characterizes traditional ethics," which culminates in the "apocalyptic possibilities inherent in modern technology," with a new kind of anthropocentric ethics that stresses the paradoxical ambiguity of man as both continuous and discontinuous with the natural world. Man is the part of nature that transcends nature in thought and action, and so becomes responsible for protecting nature just as he finds his highest fulfillment in contemplating nature.

The contemplation of the wondrous nature of man lies at the heart of Jonas's philosophy. Like the ancient voice of Sophocles, this contemplation concerns both the technical cleverness of man and his need for ethical imperatives. Unlike Sophocles, Jonas is burdened with an insight into human historicity brought about by the dynamism of our technological age. The ancient humility in the face of an enduring cosmic order is supplemented by humility in the face of man's own power to harness the forces of nature and irrevocably alter nature. And yet, Jonas's reflections on the novelty of man's responsibility lead him to a contemplation of the whole that transcends a merely practical use of theory, offering instead an insight into the fundamental question of metaphysics: why is there something and not nothing? This question can only be answered, according to Jonas, when one transforms it into the question of value: "why *ought* there to be something in preference to nothingness, whatever the *cause* of its coming to be might be?" (Ibid., 48).

This question is determined by the question of whether a particular being, man, that locus of responsibility, ought to exist. Jonas claims that a parent's love for an infant exemplifies the demands of the imperative of responsibility. The newborn's "mere breathing uncontradictably addresses an ought to the world around, namely, to take care of him" (Ibid., 131). The being who asks the question about being begins to do so most urgently out of care for a particular kind of being. Natality throws our concern into the future as we seek to nourish and bring to actuality the infinite potential of ever-renewing human life. The "immanent ought-to-be of the suckling" turns into the "transitive ought-to-do of others" who alone can "make possible the gradual coming true of the teleological promise" inherent in every newborn (Ibid., 134). Thus, responsibility looks at things *sub specie temporis* and not *sub specie aeternitatis* (Ibid., 135). But it is the temporal orientation

of our practical concern that opens up the possibility of responding to Leibniz's question with any theoretical satisfaction. In giving primacy to birth over death, Jonas affirms the imperative that there ought to be man, which is first and foremost a metaphysical claim about nature and being.

## V. Conclusion

Sophocles' ode presents unnaturalness as somehow natural to the human. The human naturally exceeds the limits imposed not only by nature but also by the laws, conventions, and pieties of his political community. The ode's articulation of man's uncanniness provides an occasion for the three philosophers we have examined to think through man's relationship with the natural world, which encompasses both his theoretical efforts to comprehend it and his practical responsibilities toward it. Through our reading of the interpretations of Hegel, Heidegger, and Jonas, we have articulated the outlines of a rich philosophical dialogue on the nature of the human being, the difference between ancients and moderns, the limitations of the project to master nature, and the relation between the practical and theoretical, moral and intellectual expressions of human reason.

Hegel's interpretation of Sophocles' ode illustrates the intractable limitations, the intrinsic contradiction, and the tragic irony of spirit's pursuit of mastery over nature, when the partial truth of praxis is taken as the final or definitive truth of spirit's relation to nature; for although the human may succeed in using nature as a means to his own particular ends – his own satisfaction and self-preservation – spirit remains essentially beholden to the finite purposes common to all natural Dasein. In pursuit of dominion, the human remains subject to the universal negativity of nature, and in our perpetual flight from death, life becomes the "restless desire of power after power that ceaseth only in death" (Hobbes 1994, 58). The bad infinity engendered by the antagonistic opposition of spirit to nature presupposed in external relations of utility is, however, but a reflection of the inner diremption suffered by self-conscious Dasein. The rational animal can overcome such self-alienation only through the rational reconciliation effected by the philosophy of nature, "which overcomes the division between nature and spirit, and assures to spirit the knowledge of its essence in nature" (Hegel 2004, 14). Such reconciliation is spirit's "genuine liberation" in which it discards its attachment to particularity and "sheds its merely personal habits of thought and ways of looking at things" (Ibid., 444). Spirit's "liberation from nature and from nature's necessity" in knowing reason as the ground of its basic identity with nature is, moreover, equally "the liberation of nature;" for "nature is in its own self this process of becoming spirit, of sublating its otherness" (Ibid., 444, 13, 14). Just as "nothing whatever can have a positive relation to the living being if this latter is not in its own self the possibility of this relation, i.e., if the relation is not determined by the concept and hence not directly immanent in the subject," so too can nature as a

whole be known by spirit only because its being known is the actualization of nature's own relation to spirit—a relation through which what nature is in itself becomes for itself (Ibid., 385). Just as spirit transcends the particularity of its individuated existence in finding "in nature its own essence, i.e., the concept," so too does nature transcend itself and "find its consummation" in spirit when "the concept, which in nature is only *in itself*, has become *for itself*" (Ibid., 13, 444, 443).

Driven by the urgency of the oblivion of being that has brought forth a stifling darkness upon man's historical world, Heidegger turns to the Greeks in general and to Sophocles' ode in particular in order to retrieve the long-forgotten inception of the Western thinking of the being of beings. In the poetic saying of Sophocles, the Greek inception defines man as the uncanniest, the most unhomely. Man is the most unhomely because he is the most violent, and he is the most violent because he must do violence against what is overwhelming in its violence: the almighty sway of beings as a whole. In the Greek inceptive definition, then, man is most essentially man when he is called forth by, and ventures into, the battle with beings as a whole – a battle that he must in each case always lose in the end. On this view, man is only ever at home through the violent ventures of the most unhomely ones, who are also the most distinctively human – which distinction, however, ensures their exclusion and downfall. Unlike Hegel, then, Heidegger discerns in the ode not a practical relation to nature defined by mastery but a basic relation to beings as a whole (called, by the Greeks, *physis*) defined by defeat: the ode discloses being-human as "the constant plight [*Not*] of defeat and of the ever-renewed resurgence of the act of violence against being" (Heidegger 2014, 198). It is this basic relation to the being of beings that, in Heidegger's view, gives rise to the subsequent distinction between the practical and theoretical relations to nature. According to Heidegger, Hegel presumably sees only mastery in the ode because his thought brings to its fulfillment that tradition of thinking that, by devoting its attention to overcoming oppositions both practical and theoretical and thus securing beings as a home for man, thereby also forgets the unhomely essence of precisely this securing.

While Jonas offers a different genealogy of the technological age, he inherits from Heidegger a sense of urgency regarding the unprecedented vulnerability of nature. The prudential concern that arises from this conception of nature's vulnerability raises anew the question of Sophocles' ode – what is man's place within the whole? In the course of Jonas's metaphysical speculations, which are rooted in the epistemological primacy of the phenomenon of life, a conception of man as the pinnacle of nature emerges. Our responsibility toward nature is not simply a matter of prudence, of securing the correct policy proposals to ward off our self-destruction, but involves the articulation and preservation of the idea of nature in its totality. The idea of nature, without the presence of human freedom, would cease to be a unity. In other words, the emergence of human freedom realizes a potential inherent in the material world and thus brings nature to a kind of completion. The practical and theoretical are intertwined in such a way that Jonas

is theoretically and morally the post-Heideggerian heir to the Hegelian legacy, which knows that the power that comes from knowledge of nature is not the highest aim of human intellect, but rather, in the words of Hegel's lectures on the philosophy of history, that the ultimate vocation of the human is "knowledge of good and evil" (Hegel 1988, 37). Such knowledge, for Jonas, provides an answer to the question of why there are beings at all, and not nothing.

It is fitting to conclude this essay with a final reflection on the purpose of our reconstruction of the threefold *Auseinandersetzung* between Hegel, Heidegger, and Jonas over the inextricably interwoven questions of the being of nature [*physis*] and of the being that asks about the being of nature. While it is customary to offer in conclusion to an academic article a summary of results, of hypotheses confirmed, or of theses verified, all three thinkers warn against the temptation to turn philosophy into a form of research that, like other sciences, issues in actionable results, a set of facts, or a series of discrete propositional truth-claims. Indeed, all three reject the still-regnant conceit that the paradigmatic form of human knowing is mathematics and the preeminent science mathematical physics, the clarity, certainty, and precision of which are taken to be epistemically normative for every form of human thinking. All three warn against the allure of scientific specialization which attains its exact knowledge of a part by abstracting both from the whole to which the part belongs as well as from the conditions of the possibility of such knowing. And all three are skeptical of the representational thinking operative in the theories of truth that equate rigorous inquiry with scientific research (Hegel 2018, 3–4, 24–29, 33–37; Heidegger 2002, 58–70, 73–84; Jonas 2001, 191–199).

Hence, despite the substantive disagreements highlighted in this essay, Hegel, Heidegger, and Jonas all concur that, in Hegel's words, philosophic "truth is not a minted coin that can be readily given and pocketed" (Hegel 2018, 24; translation modified). Accordingly, they agree that the highest form of human thinking proceeds in a different manner than that of Baconian natural science and that the value of such thinking lies elsewhere than in its contribution to the sum total of factual truth or in the power such research makes possible. If, however, the kind of thinking exemplified by Hegel, Heidegger, and Jonas arrives at neither clearly demonstrated theories nor specific practical prescriptions, what is the value or purpose of such thinking? Even if our paper has succeeded in establishing the negative conclusion that the mechanistic, reductionist materialist view of nature is not the final truth of things, and accordingly that the vocation of philosophy cannot be, as Locke envisioned, to serve as "the Under-Labourer" of natural science, whose task consists in "removing some of the Rubbish that lies in the way to knowledge" (Locke 1979, 9–10), the question of the positive purpose of the thinking pursued in this paper remains.

To begin to provide a positive answer to the question why such thinking, though lacking utility in the conventional sense, may be "the one thing needful" both for human beings in general and for confronting the novel challenges posed by the contemporary

ecological crisis, the recent work of neuro-psychiatrist and philosopher Iain McGilchrist (2019) proves instructive. McGilchrist uses the left-brain/right-brain heuristic to describe how our modes of attention and thinking inform how the world shows up for us. Our consciousness of the world, and thus what we experience, is a consequence of the dynamic interplay between the narrowly focused attention of the left-brain, which in its focus on isolable parts tends to picture the world as inanimate, mechanical, and manipulable, and the right-brain, which in its broader, more capacious and holistic form of attention, experiences the world as a living, complex, organic totality. Whereas the former conceives of the human agent as independent of the whole, the latter conceives of the human as an integrated part of a larger whole. According to McGilchrist, both our experience of alienation and the source of the contemporary environmental crisis are downstream from our contemporary culture's prioritization of the instrumental rationality and representational understanding of the left-brain over the contemplative receptivity to the holistic order of right-brain thinking. The root of our contemporary malaise is the ascendancy of the technical efficacy of the former to the depreciation of the metaphysical speculation of the latter. If McGilchrist is correct that the hypertrophic excess of left-brain thinking is the source of both the ecological crisis of environmental despoliation and the anthropological crisis of the widespread sense that life is meaningless, then the positive good of the thinking pursued in this paper lies first and foremost in attempting to redress this baleful imbalance and recover a sense of humanity's place within the whole; for only on that basis can humanity hope to find a manner of comporting itself to nature in accordance with the deepest needs of human nature (McGilchrist 2019).

While the unanimity of Hegel, Heidegger, and Jonas regarding the need to overcome the abstract thinking underlying reductive materialism, on the one hand, and the disembodied, acosmic conception of the human subject, on the other, is in itself significant for environmental philosophy today, their disagreement is no less significant; for it discloses three distinct paths we might pursue in attempting to correct for the hypertrophic excess of left-brain thinking and the corollary spiritual destitution consequent to our dislocation from the whole. Their divergent accounts of the human and of the human's place within the whole provide a framework for thinking about our custodial responsibility to the natural environment, and their implicit dialogue about the fitting and properly human mode of attending to nature grounds the possible alternatives that a thoughtful response to our technological Novum might take. Our aim in this essay has not been to decide conclusively which of these three alternatives is "the right one" – indeed, the authors of this essay are far from attaining unanimity on this score – but rather to exhibit the kind of dialectical thinking we believe is called for in our present crisis. In McGilchrist's idiom, this essay is an exercise in right-brain thinking in defense of the importance of such thinking – the value of which lies in the activity itself. For, as McGilchrist has argued, the kind of attention one pays determines the kind of person one is.

And yet, such thinking might also be needful in a more immediate way insofar as to be actively engaged in an attentive openness to the presence of things might provide the sole bulwark against the dehumanizing effects of our most recent technological innovation. In a recent study of the astonishing transformation of the human condition wrought by the digital revolution, Antón Barba-Kay has argued that the common denominator underlying the ubiquitous and multi-faceted effects of this novel form of technology on human life is its deformation of human attention – that intentionality of consciousness which Barba-Kay describes as "the blessing of our care" (Barba-Kay 2023, 70). The digital network, and its web of all-consuming devices, poses such a grave danger to the human because while promising, like every form of technology, greater efficiency in the pursuit of our ends, this tool in fact transforms the user rather than the external world. Unlike former technological innovations, this tool is not an "inert object interpolated as a means between the acting bodily organ (usually the hand) and the extra-corporeal object of the action" that serves to mediate between man and his environment (Jonas 1999, 78). Nor is it merely a novel means to securing determinate ends that exist independently of the medium of their satisfaction. Rather, this "web of our own making" becomes the environment we inhabit. As the denizens of this brave new world, our consciousness is shaped according to the logic of its laws, and rather than promoting our freedom, like the tools of previous epochs, by securing our independence from natural necessity, this form of artifice, this novel "natural technology of attention," engenders new forms of dependence (Ibid., 78 f., 84–86; Barba-Kay 2023, 63–70, 162–169). Through its capacity to foreclose opportunities for the kind of attention and the way of thinking needed for transcending the horizon of a merely utilitarian relationship to nature, this most recent fruit of Baconian science threatens to make us oblivious to the fact that, due to a preponderance of instrumental rationality not only in our dealings with nature but also in our relations to one another, our world has become, to use Weber's famous image, an iron cage. If we are not to succumb to such a tragic fate, then what is most needed, even before any concrete action, is a transformation in what Kant called our *Denkungsart*. We must become more aware of the way we attend to the world, even as the intrusion of technology into every aspect of our lives makes fostering this awareness all the more challenging. Hence, the first task of any serious environmental philosophy must be an investigation of the mode of thinking that would enable humanity to be more fully human and, on that basis, attain a relationship to nature that is more truly natural.

Though the study of first philosophy, especially one undertaken through a comparative analysis of different interpretations of a choral ode from an ancient Greek tragedy, may seem a world away from, if not a flight from, the urgency of our present crisis, this essay has sought to refute such an assumption, which is itself emblematic of the very mode of thinking that underlies this crisis, and instead to defend the primacy of such fundamental reflection as the one thing truly needful if we are to be truly human. Only a different mode of attending to things will enable us to hear "the outcry of mute

things" and heed their warning that we must curb "our powers over creation, lest we perish together on a wasteland of what was creation" (Jonas 1999, 202).

## References


Bacon F. 1999. *Selected Philosophical Works,* ed. by R.-M. Sargent. Indianapolis: Hackett.

Barba-Kay A. 2023. *A Web of Our Own Making: The Nature of Digital Formation*. Cambridge: The University of Cambridge Press.

Benardete S. 1999. *Sacred Transgressions: A Reading of Sophocles'* Antigone. South Bend: St. Augustine's Press.

Descartes R. 1985. *The Philosophical Writings of Descartes,* Vol. 1, trans. by J. Cottingham, R. Stoothoff, & D. Murdoch. Cambridge: Cambridge University Press.

Fackenheim E. 1967. *The Religious Dimension in Hegel's Thought.* Bloomington: Indiana University Press.

Ferrarin A. 2019. *Thinking and the I: Hegel and the Critique of Kant.* Evanston: Northwestern University Press.

Hegel G. W. F. 1975. *Aesthetics: Lectures on Fine Arts*, Vol. 1, trans. by T. M. Knox. Oxford: Oxford University Press.

Hegel G. W. F. 1986. *Werke in zwanzig Bänden*. Theorie-Werkausgabe, ed. by E. Moldenhauer & K. M. Michel. Frankfurt am Main: Suhrkamp.

Hegel G. W. F. 1988. *Introduction to the Philosophy of History*, trans. by L. Rauch. Indianapolis: Hackett Publishing Company.

Hegel G. W. F. 2004. *Hegel's Philosophy of Nature,* trans. by A. V. Miller. Oxford: Oxford University Press.

Hegel G. W. F. 2009. *Lectures on the History of Philosophy 1825-6,* Vol. 3: *Medieval and Modern Philosophy.* Trans. by R. F. Brown. Oxford: Oxford University Press.

Hegel G. W. F. 2007. *Philosophy of Mind*, trans. by W. Wallace & A. V. Miller, revised by M. Inwood. Oxford: Oxford University Press.

Hegel G. W. F. 2010. *Encyclopedia of the Philosophical Sciences in Basic Outline. Part I: Science of Logic.* Trans. by K. Brinkmann & D. O. Dahlstrom. Cambridge: Cambridge University Press.

Hegel G. W. F. 2018. *Phenomenology of Spirit*, trans. by T. Pinkard. Cambridge: Cambridge University Press.

Heidegger M. 1983. *Einführung in die Metaphysik*, ed. by P. Jaeger. Frankfurt am Main: Vittorio Klostermann GmbH.

Heidegger M. 2014. *Introduction to Metaphysics*, trans. by G. Fried & R. Polt. New Haven: Yale University Press.

Heidegger M. 2002. “The Age of the World Picture,” in *Off the Beaten Track.* Trans. by J. Young & K. Haynes. Cambridge: Cambridge University Press.

Hobbes T. 1994. *Leviathan,* ed. by E. Curley. Indianapolis: Hackett.

Jonas H. 1984. *The Imperative of Responsibility: In Search of an Ethics for the Technological Age*. Chicago: The University of Chicago Press.

Jonas H. 1999. *Mortality and Morality: A Search for Good After Auschwitz*. Evanston: Northwestern University Press.

Jonas H. 2001. *The Phenomenon of Life: Toward a Philosophical Biology*. Evanston: Northwestern University Press.

Locke J. 1979. *Essay Concerning Human Understanding*, ed. by P. H. Nidditch. Oxford: Oxford University Press.

McGilchrist I. 2019. *The Master and His Emissary: The Divided Brain and the Making of the Western World,* 2nd Edition. New Haven: Yale University Press.

Sophocles 1994. *Antigone*, in Sophocles (Loeb Classical Library), ed. and trans. by H. Lloyd-Jones. Cambridge, MA: Harvard University Press.

*Ethics in Progress* (ISSN 2084-9257). Vol. 15 (2024). No. 2,
Art. #4, pp. 62-75. DOI:10.14746/eip.2024.2.4


# *Life as Paradigm of Knowledge. What Use of Hegel in the Age of the Environmental Crisis?*

Stefania Achella

(Università degli Studi "G. d'Annunzio" Chieti – Pescara, Italy; s.achella@unich.it)
ORCID: 0000-0001-9806-5811

**Abstract:** This paper aims to show to what extent the normativity of organic life that emerged from the natural sciences of Hegel's time influenced the structuring of his speculative approach. In the first part, the eighteenth-century paradigm shift in the natural sciences is investigated as marking the transition from a physics-based worldview to a biology-based one. This shift argues strongly against the reduction of nature to mechanism and provides an adequate model for analysing the functioning of all other complex systems and, above all, the functioning of reason. In the second part, the consequences of such a shift are evaluated with respect to Hegel's idealism, especially in relation to the categories of organism and purpose. They are the core elements for understanding not only the mode of living but also that of thinking. In the last part, we identify Hegel's philosophy as a "living ontology," an ontology that keeps pace with reality by modifying its categories accordingly. From this point of view, Hegel's idealism can be compatible with a new idea of the relationship between human beings and the environment, in the direction of a relational ontology. The paper then focuses on the legacy of this re-reading of Hegel's philosophy in the contemporary debate on ecological thinking that attempts to answer the question raised in the discussion on the environmental crisis and Anthropocene.

**Keywords:** Mechanism; living ontology; relational ontology; environmental crisis; Anthropocene; Hegel.

## I. Introduction

Why link Hegel's philosophy to the Environmental crisis debate? Recent discussions in environmental studies have drawn attention to the need to rethink the relationship between human activities and the environment, so as not to make it impossible for human beings to survive in the future. This means abandoning the idea of human supremacy, not only over other living beings, but also over the non-living.

From a philosophical point of view, this overcoming requires coming to terms with a long tradition of thought that finds a central point in Hegelian philosophy. Indeed, Hegel's absolute idealism has been identified as one of the main culprits behind the idea of the supremacy of the spirit over nature, and of an epistemology that would have subordinated the sciences of nature to those of the spirit. Should we therefore abandon all

the conceptual tools offered by his philosophy? In other words, must we today completely reject the capacity of his thought to think complexity? We believe instead that Hegel's philosophy, reread from a different perspective, can still offer conceptual tools that enable us to overcome the epistemological and ontological impasse before which the current environmental question confronts us.

This article will therefore start (1) with a historical reconstruction of the debate on the natural sciences in Hegel's time, in order to show the influence it had on his system of thought. In the light of this reconstruction, (2) we will show how Hegel seriously considered and used the categories of the new life sciences. On this basis, (3) we will attempt to demonstrate how a new epistemological and ontological perspective can emerge from Hegel's philosophy. This new perspective can offer us the opportunity to reconceptualize the relation of the human being with the planet. From an epistemological point of view, through to its systematic perspective and his idea of a new form of reason (intendend not as *Verstand*, but as *Vernunft*), Hegelian philosophy can offer a model for overcoming the division between the natural sciences and the humanities; from an ontological point of view, the proposal of a relational ontology (as presented in his *Naturphilosophie*) can demonstrate the essential intertwining between the human being and nature (non-human but also non-living).

## II. Modern Rationality's Aporias

In the nineteenth century, there was an increased awareness that the old theoretical categories were no longer sufficient to understand the complex structure of life, and that (different) tools were needed to grasp its exceptionality. This new awareness has a decisive impact not only on the sciences but also on how reason itself is understood.

Isaac Newton's approach typified the modern rationality model. In 1687 his first edition of *Philosophiae Naturalis Principia Mathematica* was published. With this work, Newton explains the objective of his physics, or rather, as he says in the language of his time, of his philosophy (sc. *natural philosophy*). In contrast to Descartes' mechanics, Newton considers the study of motion and the forces essential to the knowledge of bodies.[1] The latter marks the difference between Cartesian physics – built on purely mechanical movements, and Newtonian physics – carried out by applying physical-mathematical laws.[2] In this regard, while rescuing matter from the deformations produced by subjective knowledge, Newtonian physics attempts to continue the work begun by

1 "The ancients studied this part of mechanics in terms of the five powers that relate to the manual arts [i.e., the five mechanical powers] and paid hardly any attention to gravity (since it is not a manual power) except in the moving of weights by these powers. Since we are concerned with natural philosophy rather than manual arts, and writing about natural rather than manual powers, we concentrate on aspects of gravity, levity, elastic forces, resistance of fluids, and forces of this sort, whether attractive or impulsive" (Newton 1999, 382; on this see Neuser 2017, 33–42).

2 On this topic, see in particular the *General Scholium* in the Preface to the second edition of the Newtons's *Principia* 1713 (cf. Newton 1999, 939–944).

Galileo. Sensibility could well serve to give an account of the existence of an object, but it was up to mathematics to give access to the knowledge of bodies. In the conclusion of his *Preface* to the *Principia*, however, Newton pushes his gaze one step further, hinting how the principles developed by his mechanics could be applied to explain all natural phenomena:

> For many things lead me to have a suspicion that all phenomena may depend on certain forces by which the particles of bodies, by causes not yet known, either are impelled toward one another and cohere in regular figures, or are repelled from one another and recede. Since these forces are unknown, philosophers have hitherto made trial of nature in vain. But I hope that the principles set down here will shed some light on either this mode of philosophizing or some truer one (Newton 1999, 382–383).

Newton's work marks a real watershed which affected not only scientific discourse but also that of philosophy in the following centuries. This was the case in at least two respects: the first can be linked to the model of the relationship between the forces, which lays the foundation of modern rationalism up to the nineteenth century *Naturphilosophie* – what Hegel calls the "play of forces" (Hegel 2017, 88), and which relies on oppositional dynamics for the explanation of phenomena. The second order of motives is more far-reaching and determines the very status of modern reason. As is well known, in the *General Scholium* to the second edition of his *Principia*, the one that contains the famous formula *Hypotheses non fingo* (Newton 1999, 943), Newton configures a completely new form of rationalism, claiming that science does not have to respond to the "why" but only to the "how" of phenomena. In particular, although he would rely on the divinity as guarantee for the order of the universe, he points to the knowledge of the limits of reason as the best way of making use of rational instruments.

The Newtonian position pervades eighteenth-century rationalism and famously seeps through Kant's idea of reason, who not only accepts the invitation to apply mathematical knowledge to the study of all natural phenomena,[3] but – even more radically – is deeply persuaded that one needs to establish the "limits" of reason also in the philosophical sphere (on the relationship between Kant and the sciences, cf. Friedman 2015). Even though he perceives its insufficiency, Kant remains anchored to a conception still burdened by the physical-mathematical knowledge. And yet, his critical reformulation, which overcomes the demands of rationalist metaphysics in the name of an anti-dogmatic reason, and implies the inadequacy of Newtonian science, is precisely the speculative formulation of the need for a further transition.[4]

3 In § 75 of the *Critique of Judgement* Kant states: "It is, I mean, quite certain that we can never get a sufficient knowledge of organized beings and their inner possibility, much less get an explanation of them, by looking merely to mechanical principles of nature" (Kant 2007, 228).

4 If in the *Allgemeine Naturgeschichte und Theorie des Himmels* (1755) Kant was very near to Newtonian Physics and to its philosophical implications, in the dissertation, on *Metaphysicae cum Geometria Iunctae Usus in Philosophia Naturali, Cuius Specimen I. Continet Monadologiam Physicam* (Newton 1756) he contrasted Newtonian methods of thought with those of Leibnizian philosophy prevalent in German universities at the time. However, even the Leibnizian conception would show

If Newtonian mechanics had worked to explain the movement of the planets, it did not seem entirely adequate to grasp the functioning of the living. The question that Kant hands over to the next generation is therefore the same that had accompanied him since his first "pre-critical" works: what form must reason have if it is to know living bodies and living forces?

## III. Life as Problem

At the end of the eighteenth-century, Kant left the Newtonian model on shaky legs. No Newton of the "blade of grass" appeared[5]. Furthermore, the introduction of the point of view of biology and its object, life, had a widely disruptive effect, in particular on German idealism.[6]

In the transition from the notion of forces and their opposition, fundamental in cosmological and inorganic physics – reflected in a form of reason based on opposition and distinction, to that of life – based instead on the organic relation, the physical-mathematical system loses its hermeneutic capacity. It is replaced by the biological model, with the ideas of complexity and fluid relation. This shift determines a matching heuristic displacement: while Kant incorporates the ideas of law and validity *a priori* in his model of knowledge, idealism in general, and particularly Hegel's, is connected to biology and biology's claims on the centrality of the living being. It therefore advocates a plastic interpretative universe and a dynamic form of knowledge. In the debate of those years – see for example that between Fichte and Jacobi (see Ivaldo 2016; Sandkaulen 2019) – what is widely discussed is precisely the claim to truth of speculative inquiries concerning life, with respect to its contingent and dynamic nature, which escapes the configuration of mathematical truths. In this sense, at the end of his introduction to the philosophy of nature in the *Encyclopaedia*, Hegel states that life is difficult for the intellect to understand – the easiest thing to comprehend is the abstract, the dead (see Hegel 2004, § 251). In so doing, he acknowledges the need within the life sciences for a new understanding of rationality. Life poses a particularly wide problem: it not only represents a challenge for the individual sciences, but requires a new form of understanding, a new model of cognition. According to Hegel, it is essential to outline an idea of reason which comprehends living phenomena in their changing, in the historical dimension of their

its insufficiency, requiring Kant to take a further theoretical step. For a detailed analysis of Kant's early writings on these questions, see (Cafagna 2020).

5 As Kant states: "Indeed, so certain is it, that we may confidently assert that it is absurd for human beings even to entertain any thought of so doing or to hope that maybe another Newton may some day arise, to make intelligible to us even the genesis of but a blade of grass from natural laws that no design has ordered" (Kant 2007, § 75, 228).

6 This passage is explicitly stated in one of Hegel's early fragments, drafted between 1796 and 1797 with Hölderlin and Schelling, *The Oldest Systematic Program*, in which he writes: "It does not seem as if present day physics could satisfy a creative spirit such as ours is or should be" (Hegel, Schelling, & Hölderlin 1987, 161).

becoming, facing up to the "epistemic opacity" that previous forms of rationalism have tried to expel from rational knowledge, consigning it to the status of de facto truth, or relegating it, as Kant did, to the "incomprehensible mystery" (Hegel 2010, 678).[7] In order to overcome this abyss, as substantiated by the whole contribution of modern rationalism, the solution is identified in the configuration, or to put it in Goethe's words, in the "morphology" of the living being, that is to say, in life that contains in itself the form of its knowability. Kant himself had opened the door to this solution, in the pages of the Third Critique dedicated to organised natural phenomena: little or nothing can be said about organised phenomena if we consider them as an analogue of art, but "We might perhaps come nearer to the description of this unfathomable property if we were to call it an *analogue of life*" (Kant 2007, § 65, 203).[8]

We can recall that Goethe, a few years earlier, had stated that the principle of knowledge of the living could only be found in life's way of being: "A thing that exists as a living being cannot be measured by anything outside of it, but – if something like that were to happen – it should be its own measure" (Goethe 1964, 6–8).

In all these attempts, a process of immanentisation of the principle of reason is set in motion, which, unlike the Newtonian tradition, leaves no hidden cause outside – hence not much room for the "limits" to reason – but rather shifts all explanations within the phenomena themselves. This is also the distinguishing feature of Hegel's approach to reason, at variance with modern reason, including Kant's understanding of it.

In Hegel's work one can witness to the birth of a new form of reason which is the result of his ability to read the discoveries of the life sciences (see Illetterati & Gambarotto 2020). The biology of those years, partly taking up the theories of vitalism, considers life as a form of nature that carries within itself a cognitive quality, even in its simplest forms. The paradigmatic model of Hegel's understanding of reason is precisely this capacity of life to contain both the natural and biological norms of behaviour as well as the cognitive ones, a type of relationship that also allows us to reconcile nature with spirit, and thought with being.

7 About nature and its "organised products" Kant speaks of an "unfathomable property" (Kant 2007, § 65, 203).

8 The purpose of the organism is not in fact comparable to the external purpose of the artist. As we read in the *Analytic of Teleological Judgement*, there is an objective and intellectual finality that is that of geometry (different from the subjective and aesthetic finality of beauty); there is the objective and material finality that we find in nature, linked to the relationship between cause and effect, which can be summarized in terms of utility or convenience where the effect is simple material for the art of other possible beings of nature. This is a relative and external purpose. Finally, there is a last type of purpose whose form is not determined by simple natural laws and therefore knowable by the intellect but presupposes the concepts of reason. In this case, Kant sums up, the cause is the effect of itself, this purpose is that of living organisms (cf. Kant 2007, §§ 63–64, 194–200; see also Ginsborg 1997, 329–360).

## IV. Hegel's Critique of the Scientific Method

In response to the Kantian inherited question, Hegel claims that reason has complete access to the object of knowledge. He thus dissolves entirely the distinction between subject and object, logic and ontology, science, and metaphysics. Hegel's proposal tries to overcome the Kantian distinction between universal scientific knowledge and at best action-oriented wisdom, and to "rethink" the status of scientific knowledge. The result is that the kind of reason standing behind the knowledge of science and that of philosophy is one and the same thing. This means that the system of sciences is never assessed separately from a unitary and dynamic vision of reason. Nevertheless, this position does not lead to an anti-scientist, idealistic position, or one in which science is understood derogatively.

The Hegelian project aims to develop a new form of understanding capable of grasping the fluid movement of thought in the same way that in those years, physicians, physiologists, scientists were trying to understand living beings. To this end, he uses life as a model of understanding, which allows him to build a bridge between the analysis of the sciences of the living and those of thought. He does so on the basis of the notion of life as key, shared norm of comprehension. It would therefore be a mistake to attribute to Hegel's idea of a broader and living reason the arrogance of the narrow rationality of positive knowledge. On the contrary, Hegel warns against any form of instrumental reason that could only separate the subjective and objective site and compromise the integrity of knowledge.

For Hegel, there is no structural difference between philosophical and scientific reason, but only a regional one, inasmuch as scientific reason works on a more circumscribed field of knowledge, as is made clear in the chapter of the *Phenomenology of the Spirit* dedicated to observational reason.[9]

In the first pages of this chapter, Hegel analyses the leading methods of the sciences of his time: observation, experimental approach, rule. Fully aware of its insufficiency, the observing reason feels restless, "the observing, in clinging tenaciously to motionless self-consistent being, must see itself here teased with cases that rob it of every determination, which silence the universality it has reached, and which set it back again to unthinking observing and describing" (Hegel 2017, 147). The restless labour of this form of scientific reason, which consists of constant and infinite research, is linked, at this stage, to the lack of awareness of the equality between the observed object and the observing consciousness. In observation, as in description, it is not possible to go beyond the continuous reopening of the distance between the individual dimension, typical of empirical observation, and the aspiration to the universal, responding to the need to trace laws.

In scientific observation – what Husserl would later call "naturalistic attitude" – the

9 Hegel's position on the character of empirical research, experiment, and classifications proves, according to Cinzia Ferrini, his active participation in the scientific debate of his time (cf. Ferrini 2009, 116–118).

world is never approached naively, but is rather always already framed within pre-existing norms. It is indeed impossible to set aside the already structured nature of the object. Consciousness – Hegel writes – forgets that the object is already essentially determined. Moreover, observing consciousness is never passive, but rather always actively at work. A naive description cannot in fact exist. The encounter between object and consciousness is never a primordial encounter, but always presupposes the sharing of an original horizon in which consciousness and the observed world are co-extensive. This is where the model of the living comes to the fore and allows us to understand Hegel's strategy to overcome the fracture between observed and observing. Just as in living nature the distinction between organic and inorganic is certainly assumed but not real, the same also happens with knowledge. Every separation assumed in nature between life and non-life is an artificial construction; similarly, Hegel says, every attempt to think of subjective reason as separated from the world is the result of an *ex post* operation, of an artifice that separates what is originally united in nature.

In the *Phenomenology,* the critique of the epistemic model of the sciences paves the way to Hegel's comprehensive criticism of the spirit of early modernity – which encompasses both the sciences and Kantian subjectivism – as what should be eluded at all costs.

The objective of immediate observation reveals itself as an intellectual construction. Physics cannot really go beyond the naive faith of the old metaphysics and remains entangled in an insoluble contradiction between the affirmation of empirical differences and an alleged aspiration to the universal. The critique of the method of positive sciences is therefore the critique of a naturalisation of concepts, in opposition to which, in the spirit of the sciences of his time, Hegel advocates the model of living reason.

Hegel's critique of the status of the observational and descriptive sciences has been read by later tradition as Hegel's retreat from the empirical and scientific plane to the metaphysical or spiritual. Yet we can now see that it represents one of the most important contributions of the dialectical approach to scientific knowledge. As many recent studies have confirmed (Latour 1991; Stengers 1993), for Hegel it is not possible to have scientific knowledge of phenomena without considering, in addition to the empirical-observational dimension, the social, cultural, anthropological implications.

## V. Elements for a Living Ontology

If we read Hegel's critique of the empirical sciences in this light, we can appreciate the epistemological shift he proposes. He determines a shift in structure, notions and methods, an "epistemic change." Or, as Foucault would say, a new *episteme*: in the wake of biology and the sciences of the living, Hegel elaborates a new model of understanding that is based on a self-reproductive and plastic reason. This new model also requires a conceptual redefinition: new categories emerge that determine a different set of

terminological tools (dialectical relation, determinate negation, speculative proposition). It also implies a different way of interpreting the relationship between the living and the non-living. The model developed by Hegel is not based on opposition but on intertwining, as the model of the organism (in which all the elements are interrelated) shows. However, this is not just an epistemological shift, but a proposal that requires a different ontological approach (on this: Gambarotto & Illetterati 2014; Sell 2013; Achella 2015; Achella 2022). Compared to the merely instrumental use of the notion of an organism, the ontological view or 'ontologisation' of the organism insists instead on its intrinsic properties (on the notion of organism in Hegel see: Breidbach 1982; Schlanger 1995; Wolfe 2004; Wolfe 2013; Gambarotto & Illettterati 2014), makes a strong case against the reduction of nature to mechanism and provides a suitable model for the analysis of the functioning of all the other complex systems. This shift towards the organism also determines a different idea of relation, whose essence now becomes, as Hegel states in the *Early Writings*, to be one with the excluded. The concept of organism thus incorporates the model of a new form of rationality. Organism and reason, in their new meaning, almost come to coincide. In this sense, biology has a strong epistemological output, based on the modelling of the concept of organism, hence of living, as a mode of relation which is valid for other areas of knowledge as well. The extension of the concept of organism to spheres that are not directly pertinent to it, such as, for instance the historical and political world, even becomes a criterion of scientific reliability when it comes to studying human phenomena as rigorously as the natural sciences do.[10] Concomitantly, the embryological research of those years shows that an organism has an ontogeny and a phylogeny (Gould 1977). Knowing the organism is a complex and plural cognition. It therefore implies not only an understanding of all the forces that animate it from the outside (the school of Montpellier), its constitution (Preformation or Methamorphose), its ontogeny, but also the effects produced by the environment (Lamarck, Treviranus), evolution (Transformism), and history (Buffon).

By appropriating a relational ontological approach characteristic of classical German philosophy, Hegel affirms a complete rethinking of the model of reason that was still tied to abstract or empirical reasoning and based on binary and oppositional distinctions. He therefore proposes a holistic comprehension of the nature and of the spirit.

The model of the organism refers to, and legitimises, a different idea of purpose. Reason, like the organism, has within itself the realisation of its own aim. The Kantian idea of the "autonomy of reason" now acquires a radically new meaning. The error of modern thought, according to Hegel, is separating nature from reason, necessity from purpose, science from philosophy/metaphysics. For Hegel, it is an unjustified self-limitation of reason to think that we cannot access nature, which is nothing but the alienated reason itself – that is to say, reason broken down by a form of analytical judgement, which is

10 Georges Cuvier's work is exemplary in his attempt to combine organism and rationality, so much so that his theories, bearing testimony to the transition phase from fixism to evolutionism, are particularly appreciated and taken up again, just as a rational model, by Hegel.

useful for determination, but partial as to the whole process of knowledge. As we read in the *Logic*, granted that the relation of purpose judges *objectively*, it is not *judgement*, but *syllogism*.[11] This entails that the fundamental question concerning the structure of the living being is a question that must be solved both logically and ontologically. A full understanding of Hegel's upheaval of Kant's notion of purpose leads then to a fuller assessment of the radical change in epistemic perspective. While disentangling purpose from intention, hence from subjective representation, Hegel establishes the speculative and no longer merely representative nature of his philosophical inquiry.[12] *Lebendigkeit*, or immanent vitality, becomes the cipher of this new form of thought, also known as dialectics, which achieves the remarkable result of retrieving the concept not only from the ineffability of intellectualistic metaphysics, but also from the scepticism of critical subjectivism.

The genesis of a new logic, which Hegel defines as subjective logic, is thus intertwined with the biology that was developing at the time, and that offered the philosopher a new way of conceiving of being, knowledge and their relationship. The plan of logic intersects, in this formative itinerary, with that of the living. Hegel's logic can be understood as a "Bio-logic," as a cognitive logic within life. It works as an epistemic model, as a normativity for knowledge, but above all as an ontological model. The speculative and the biological level seems to be welded together in an exemplary and evocative way.

This combination undoubtedly has an impact on the status of scientific knowledge. In this regard, one should not dismiss as incidental that in the pages of *The Science of Logic* dedicated to the idea of life Hegel dwells on an anthropological theory that is very different from the physiological anthropology typical of his time. Whereas in the *Phenomenology* Hegel speaks against the method of science as one that uses reason in a still partial way, in these pages Hegel clearly points to the relapse of his philosophical analysis within the realm of the sciences. However, while rejecting any reductionism, he outlines a new way of knowledge.[13]

This involves the idea of a human reason that is not separate from natural reason. On

11 "But for that reason, the connection of purpose is not a *reflective judgment* that considers external objects only according to a unity, *as though* an intelligence had given them to us *for the convenience of our faculty of cognition*; on the contrary, it is the truth that exists in and for itself and judges *objectively*, determining the external objectivity absolutely. The connection of purpose is therefore more than *judgment*; it is the *syllogism* of the self-subsistent free concept that through objectivity unites itself with itself in conclusion" (Hegel 2010, 656).

12 For a detailed discussion of life's role in Hegel's reformulation of Kantian judgment see Ng (Ng 2019). She is however not interested in the role of life sciences in Hegel's reformulation.

13 This distinctive feature of Hegel's work has been grasped by George Canguilhem: "Mais un philosophe comme Hegel n'a pas refusé ce que Kant s'est interdit. Dans la *Phénoménologie de l'Esprit* aussi bien que dans la *Realphilosophie* d'Iena ou la *Propédeutique* de Nuremberg, le concept et la vie sont identifiés (…) La vie, dit Hegel, est l'unité immédiate du concept à sa réalité, sans que ce concept s'y distingue (…) En un sens donc le vivant contient en lui-même la vie comme totalité et la vie dans sa totalité. La vie comme totalité, en raison du fait que son commencement est fin, que sa structure est téléologique ou conceptuelle. Et la vie dans sa totalité, pour autant que produit d'un producteur et producteur d'un produit, l'individu contient l'universel" (Canguilhem 1966, 203–205).

the contrary, there is no substantial difference between human reason and natural reason, only a greater refinement of the former compared to the latter. This entails overcoming the separation between the knowledge of the natural sciences and that of the humanities, but also the idea of an 'ontological difference' between human beings and nature.

This leads to the following question: How can this Hegelian repositioning be useful for confronting the phenomenon called Anthropocene?

## VI. With Hegel beyond Hegel: Insights into the Anthropocene

In this last section, I will try to answer this question by focusing on three aspects that can place Hegelian analysis in continuity with the reflections that have been developed in recent years within feminist movements in the face of the ecological crisis and the emergence of the so-called Anthropocene, and that can offer useful tools for confronting these issues.

(1) The first aspect is the contribution to overcoming the sharp division between the human and non-human. The biocentric dynamic developed by classical German philosophy and further developed by Hegel can help us to bridge the distinction between *bios*, as human life, and *zoe*, as animal and non-human life (on this topic see Grosz 2011). The shift from the human subject to a subjectivity that Hegel, on the Aristotelian model, also finds in plant and animal nature, makes it possible to broaden the level of agency. It also shifts the focus from the human being as the sole legislator – an attitude proper to the Kantian tradition – to life as an active and autonomous subject endowed with its own legality and an internal teleology independent of the human subject.

As the feminist tradition has shown, this shift can nevertheless have some problematic consequences. Once the discourse is linked to life and human beings are reduced to their natural aspect, all differences disappear, and we return to an ontology that neutralises or naturalises differences.[14] The relational character of Hegelian ontology, based on the idea of life as an indistinguishable interweaving of *bios* and *zoe* leads in the direction of a non-anthropocentric perspective that nevertheless does not deny the anthropologically bound structure of human beings, their differences and values. In this way, Hegel breaches the fences between the human and non-human but still safeguards human specificity by avoiding its total naturalisation.

(2) Hence the second achievement and benefit of Hegel's thought: the eradication of soul-body dualism. Even for Hegel, anthropomorphism remains the specific embodied and embedded position of the human being, and the recognition of its situated nature is the first step towards overcoming naturalization.[15] According to this perspective, life is on the one hand always embodied and as such material, but on the other hand it is

14 Rosi Braidotti's understanding of nature as naturalisation of inequalities (Braidotti 2017, 22).

15 Cf. Braidotti's idea of a nomadic philosophy of radical immanence that foregrounds *embodiment* and *embeddedness* rather than detachment from the thinking organism (Braidotti 2017, 33).

also the bearer of cognitive instances. For Hegel, there is no fixed dividing line: there is no body without a soul, and the self does not articulate itself outside the body. It gives rise to what we might now call an embodied spirit (see Hegel's Anthropology 1830, § 389 and An). This movement towards transcending the rigid determinate structure is internal to nature itself. The transition is accomplished in nature. The mode of being proper to the subject, which we are accustomed to considering as human, finds its first real articulation in nature, and specifically in the animal organism. Hegel thus goes beyond the intellectualist and reductionist vision in one fell swoop, helping to go beyond all the traditional ontological and epistemological categories based on what we now call the binary paradigm.

The Hegelian position could therefore be related to more recent developments within feminist thought, such as agential realism.[16] It rejects a conception of the world based on 'separateness' and propose an epistemological perspective centered on ecological principles and an invitation to responsibility. As Elizabeth Grosz writes in her introduction to her work:

> I do not want to privilege ideality over materiality, but to think them together, as fundamentally connected and incapable of each being what it is without the other to direct and support it. Ideality frames, directs, and makes meaning from materiality; materiality carries ideality and is never free of the incorporeal forms that constitute and orient it as material (Grosz 2011, 12).

Thus, if we go one step further than Hegel, we can think of a material-ideal ontology that can offer another model of interaction capable of encompassing not only materiality but also the ideal intentional state that determines matter.

(3) The overcoming of the nature-culture divide can be linked to another Hegelian contribution. As Hegel points out in the passages devoted to habit, it is impossible to separate the corporeal from the spiritual, and the one inevitably arises from and thanks to the other. A similar direction seems to be found today in the crossing of fences proposed by Karen Barad's current agential realism, which invites us to rethink the nature-culture relationship in terms of 'exteriority within' (Barad 2007, 135). That is, they are co-implicated not because they are originally separate, but because in drawing their own boundaries they acknowledge the space of the Other. The definition of the one thus appears, albeit from the outside, essential to that of the Other. It is therefore a matter of getting through the illusion that nature and culture exist initially as separate, because reality is originally given as nature-culture. Their separation served to establish an idea

16 This 'vital' dimension of matter distinguishes the new feminist materialism from historical materialism. Whereas the latter saw matter as the product of human intentionality, and thus as the effect of practices and choices based on human agency in any case, the new feminist materialism recognises the existence of non-human agency. Now agencies do not represent individual elements, but live in mutual entanglement. Unlike the materialism of the dialectical tradition, which refers to the establishment of social and human relations, the new materialist feminism also penetrates the sphere of the non-human. The material and the discursive imply each other.

of objectivity that is still the basis of modern science, according to which there is an objectivity purified of cultural, social and political contamination. But it is not enough to gain a broader perspective of knowledge, as the current scientific orientation shows. It is in this direction that Karen Barad, and, as we have tried to show, Hegel always already invite us to overcome this separation, which is the prelude to any claim to hierarchization, prevarication and supremacy. It is, therefore, a question of returning to the idea of an interconnectedness that precedes any separation, not only on an epistemological level but also, more profoundly, on an ontological level. This is an invitation that, although in a different and distant context, is already fully understood in Hegel and can help us to adopt a new attitude towards the environment, as well as other life forms and animal species.

## References

Achella S. 2022. "Idealism and Science of Life: An Intersection between Philosophy and Biology," in N. Rezaei & A. Saghazadeh (Eds.), *Thinking* (pp. 111–131). Berlin – New York: Springer Nature. https://doi.org/10.1007/978-3-031-04075-7_5

Achella S. 2015. "Das Leben denken: Ursprung und Zweck in der Hegelschen Philosophie", in W. Neuser & S. Lange (Eds.), *Natur zwischen Logik und Geschichte. Beiträge zu Hegels Naturphilosophie* (pp. 187–204). Würzburg: Königshausen & Neumann.

Barad K. 2007. *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*. Durham: Duke University Press.

Biard J., Buvat D., Kervegan J.-F., et al. (Eds.) 1992. *Introduction à la Science de la logique*. Paris: Aubier.

Braidotti R. 2017. "Four Theses on Posthuman Feminism," in R. Grusin (Ed.), *Anthropocene Feminism* (pp. 21–48). Minneapolis: University of Minnesota Press.

Breidbach O. 1982. *Das Organische in Hegels Denken. Studie zur Naturphilosophie und Biologie um 1800*. Würzburg: Königshausen & Neumann.

Burbidge J. W. 2014. "Hegel's Logic as Metaphysics," *Hegel-Bulletin* 35(1):100–115. https://doi.org/10.1017/9781009067805

Cafagna E. 2020. *Kant e la metafisica della forza. Un'interpretazione dei primi scritti*. Roma: Edizioni di Storia e Letteratura.

Canguilhem G. 1966. "Le concept et la vie", *Revue Philosophique de Louvain* 64(82):193–222. https://doi.org/10.3406/phlou.1966.5347

Cantillo G. 2013. "Il doppio rispecchiamento: ragione e vita nella logica hegeliana", *Teoria* XXXIII:69–84.

Dagognet F. 1997. *Georges Canguilhem. Philosophie de la vie*. Paris: Les Empêcheurs de penser en rond.

Ferrer D. 2006. “La fonction systématique de l’idée de la vie dans la *Science de la logique* de Hegel”, *Hegel-Studien* 41:154–158.

Ferrini C. 2009. “Reason Observing Nature,” in K. R. Westphal (Ed.), *The Blackwell Guide to Hegel’s Phenomenology of Spirit* (pp. 92–135). Oxford: Blackwell Publishing. https://doi.org/10.1002/9781444306224.ch5

Foucault M. 2001. *La vie: l’expérience et la science*, in Idem, *Dits et écrits II*. Paris: Gallimard.

Friedman M. 2015. *Kant’s Construction of Nature. A Reading of the Metaphysical Foundations of Natural Science*. Cambridge: Cambridge University Press.

Gambarotto A. & Illetterati L. 2014. “The Notion of Organism. Historical and Conceptual Approaches,” *Verifiche* XLII:1–4.

Giladi P. 2016. “Hegel’s Metaphysics as Speculative Naturalism,” in A. De Laurentiis (Ed.), *Hegel and Metaphysics. On Logic and Ontology in the System* (pp. 149–159). New York – Berlin: De Gruyter. https://doi.org/10.1515/9783110424447-012

Ginsborg H. 1997. “Kant on Aesthetic and Biological Purposiveness,” in A. Reath, B. Herman, & Ch. Korsgaard (Eds.), *Reclaiming the History of Ethics: Essays for John Rawls* (pp. 329–360). Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9780511527258.013

Giuspoli P. 2013. *Idealismo e concretezza*: *il nuovo paradigma epistemico hegeliano*. Milano: FrancoAngeli.

Goethe J. W. 1964. *Aufsätze, Fragmente, Studien zur Naturwissenschaft in allgemeine*. Bearb. von D. Kuhn. Weimar: Hermann Böhlau.

Gould S. J. 1977. *Ontogeny and Phylogeny*. Harvard: Harvard University Press.

Grosz E. 2011. *Becoming Undone: Darwinian Reflections on Life, Politics, and Arts.* Durham: Duke University Press.

Hegel G. W. F. 2010. *The Science of Logic*, trans. by G. di Giovanni. Cambridge: Cambridge University Press.

Hegel G. W. F. 2001. *Vorlesungen über die Logik*, Berlin 1831. Nachgeschrieben von Karl Hegel, in H.-C. Lucas (Ed.), *Vorlesungen. Ausgewählte Nachschriften und Manuskripte*, Vol. 20. Hamburg: Felix Meiner.

Hegel G. W. F. 2004. *Hegel’s Philosophy of Nature – Encyclopedia of the Philosophical Sciences*. Trans. by A. V. Miller. Oxford: Oxford University Press.

Hegel G. W. F. 2006. *Nürnberger Gymnasialkurse und Gymnasialreden (1808/1816)*, in K. Grotsch (Ed.), *Gesammelte Werke*, Vol. 1/1. Hamburg: Felix Meiner.

Hegel G. W. F. 2017. *The Phenomenology of Spirit*, trans. by T. Pinkard. Cambridge: Cambridge University Press.

Hegel G. W. F., Schelling F. W. J., & Hölderlin F. 1987. “The Oldest Systematic Program of the German Idealism,” in *Philosophy of German Idealism: Fichte, Jacobi, and Schelling*. Trans. by E. Behler. New York: Continuum.

Illetterati L. & Gambarotto A. 2020. “Hegel’s Philosophy of Biology? A Programmatic Overview,” *Hegel Bulletin* 41(3):1–23. https://doi.org/10.1017/hgl.2020.21

Ivaldo M. 2016. “Leben und Philosophie: *Die Anweisung zum seeligen Leben* als Antwort auf Jacobis Nihilismus-Vorwurf”, in M. V. D’Alfonso, C. De Pascale, E. Fuchs, & M. Ivaldo (Eds.), *Fichte und seine Zeit. Kontext, Konfrontationen, Rezeptionen*. *Fichte-Studien* 43:172–185.

Kant I. 2007. *Critique of Judgment*. Trans. by J. C. Meredith, revised, edited, and introduced by N. Walker. Oxford: Oxford University Press.

Latour B. 1991. *Nous n’avons jamais été modernes. Essai d’anthropologie symétrique*. Paris: La Découverte.

Neuser W. 2017[2]. *Natur und Begriff. Zur Theoriekonstitution und Begriffsgeschichte von Newton bis Hegel*. Cham: Springer.

Newton I. 1999. *The Principia: Mathematical Principles of Natural Philosophy*. Engl. translation by I. B. Cohen & A. Whitman, preceded by a Guide to *Newton’s Principia* by I. B. Cohen. California: California University Press.

Ng K. 2013. “Life, Self-Consciousness, Negativity: Understanding Hegel’s Speculative Identity Thesis,” in T. Khurana (Ed.), *The Freedom of Life Hegelian Perspectives* (pp. 33–68). Berlin: August Verlag.

Ng K. 2019. *Hegel’s Concept of Life: Self-Consciousness, Freedom, Logic*. Oxford: Oxford University Press.

Sandkaulen B. 2019. “Der Begriff des Lebens in der Klassischen Deutschen Philosophie – eine naturphilosophische oder lebensweltliche Frage?”, *Deutsche Zeitschrift für Philosophie* 67(6):911–929. https://doi.org/10.1515/dzph-2019-0068

Schlanger J. 1995. *Les métaphores de l’organisme*. Paris: L’Harmattan.

Sell A. 2013. *Der lebendige Begriff*. Freiburg i. Br.: Karl Alber.

Stengers I. 1993. *L’invention des sciences modernes*. Paris: La Découverte.

Wolfe Ch. T. 2004. “La catégorie d’«organisme» dans la philosophie de la biologie. Retour sur les dangers du réductionnisme”, *Multitudes* 2(16):27–40.

Wolfe Ch. T. 2013. “L’organisme: concept hybride et polémique”, in J.-J. Kupiec (Ed.), *Une histoire critique de la biologie* (pp. 267–281). Paris: Belin.

*Ethics in Progress* (ISSN 2084-9257). Vol. 15 (2024). No. 2,
Art. #5, pp. 76-90. DOI:10.14746/eip.2024.2.5


# *Is a Contemporary Hegelian Philosophy of Nature Possible?*

Xavier Aranda Arredondo

(Universidad de Guanajuato, Guanajuato, México; xavieraranda@gmail.com)
ORCID: 0009-0008-1714-7398

**Abstract:** Hegel's philosophy of nature (*Naturphilosophie*) is impossible to separate from the rest of his system, in which nature is shown as a reflection of the idea (Idee) as presented in the logic (in the *Enzyklopädie der philosophischen Wissenschaften*). The system composed by logic, nature, and spirit, represents a dialectical relation in which logic as the universal, nature as the particular, and spirit as the singular, mediate through one another and develop as immanent and constitutive parts of the system as a whole. Yet, the goal of the philosophy of nature is not unrelated to a philosophy of science in the contemporary sense. The latter aims to solve (among other problems) the problem of dualism between the conceptual scheme/the world and the demarcation of science (and knowledge), where the crucial difference is that the Hegelian philosophy of nature benefits from having an answer to these in the form of the absolute idea (*die absolute Idee*). In a contemporary sense, the constitution of these problematics would follow an abductive reasoning where the Hegelian idea (Idee) would solve these crucial problems for philosophy of science. The following paper will attempt to provide some guiding points for such a project and suggest the assumptions necessary for its development, with the sole purpose of underscoring the similarities and differences between the Hegelian philosophy of nature and a contemporary philosophy of science.

**Keywords:** Metaphysics; Philosophy of Science; Philosophy of Nature; Logic; Epistemology; Hegel.

## I. Introduction

The idea of elaborating a contemporary philosophy of nature is somewhat anachronistic since many of its themes have been developed separately (and with varying degrees of success) by the history, the methodology, and the philosophy of science. Some of the most important problems for the latter are the demarcation of scientific knowledge (such as the separation of science from pseudoscience), the possibility of realism (and its variants like metaphysical realism, epistemological, structural, etc.), and reductionism, not only as an inter-theoretical issue, but linked to the possibility of objective grounding, understood as a relation of fundamentality and/or metaphysical priority.

Schelling's *Naturphilosophie* aimed to demonstrate the objective ground of nature through its theoretical structure, which was positioned at the base of his philosophical

system. Although Hegel's philosophy of nature has the same goal, the discussion is far more nuanced than it seems to be, as we can trace at least two different aspects in play in the relation between nature and the epistemological subject. This issue will be discussed throughout this article.

First, we should be aware of what Hegel understands by fundamentality, that is, the grounding relationship between the theoretical and reality itself. This is usually depicted as hierarchical, whereas Hegel's system favors a kind of epistemological holism and rejects the a priori/a posteriori distinction. Second, several variations of realism (particularly ontological and epistemological) wouldn't make too much sense if Hegel abandoned this distinction. The reality of nature (as an ontological or epistemological assumption) would not work in favor of a supposed hierarchy or fundamentality relation between nature and scientific knowledge.

Contemporary philosophy of science, no doubt, would have a hard time trying to grasp both insights since it would first need to translate the goal of *Naturphilosophie* to the philosophical sensibilities of our time. That alone can take us in very different directions. For example, a philosophy of nature could be understood in one of the following ways:

(1) A philosophy that explains, through objective categories in nature, the possibility of subjectivity; that is, the conceptual scheme/world problem from the dimension of the objective world, either as a materialism or a type of realism that explains how nature itself sustains this metaphysical priority[1];

(2) The rational reconstruction of what we know about nature, made possible through an epistemological criterion that accounts for the relationship between knowledge, the objective world, and our place in it as living organisms.

Perhaps the biggest difference between (1) and (2) is that the metaphysical priority of objective nature is not necessarily a problem for (2), since the idea of rational reconstruction can dispense with the normative performance of epistemology, as in Quine's naturalism.[2]

Hegelian Naturphilosophie aims to answer these questions, for example, (1) through the development of the relationship between the sections of the system such as logic, nature and spirit; while (2) corresponds to the explanation of how the categories of the logic find their objective instance in nature and how this impacts the possibility and activity of science.

All these theoretical connections are possible thanks to the systematic construction of Hegelian philosophy. In this sense, before clarifying the goals and possible performance of a philosophy of nature, it will be necessary to interpret some crucial points of the system to demonstrate how these theoretical considerations are compatible with our current

1 Thinking in Davidson's approach to the Kantian human knowledge/noumenal reality separation in his article "On the Very Idea of a Conceptual Scheme" (Davidson 1984).

2 "Epistemology Naturalized" by W. V. Quine where the aim "… is to discover how science is in fact developed and learned than to fabricate a fictitious structure to a similar effect" (Quine 1969, 78).

philosophical context. I will start from these two problems to follow this thread: (1) the conceptual scheme/world dualism, and (2) the criterion for rational reconstruction; aiming to demonstrate that if grounding is not necessarily a hierarchical relation, and if the a priori/a posteriori distinction is not essential to knowledge, our understanding of *Naturphilosophie* will change dramatically along with its possible relationship with the problems of contemporary philosophy of science.

As a brief note about the secondary literature, I would like to point out that a great deal of the contemporary interest in Hegel's philosophy of nature remains focused on disentangling his sophisticated net of concepts (see examples of inquiries into Hegelian *Naturphilosophie* in Houlgate 1998; Deligiorgi 2006; Winfield 2006; Ng 2020). In that regard, the present work has opted for taking the Hegelian solution to the problem of fundamentality (and ground) from a contemporary perspective, opting to keep metaphysics at the center of the discussion, though there is certainly a need to compare with recent work in metaphysics, since contemporary studies of 'grounding' in any of its varieties do not usually address the German Idealists (see Correia & Schnieder 2012; Jago 2016; Bliss & Priest 2018; Raven 2020). As a consequence of this approach, addressing the "organic concept of the world" (I will refer the reader to Beiser 2003 and Berger 2023) would be much needed, just like the relationship between nature and spirit as second nature.[3] Due space constraints, this will not be possible and will be left to a future work.

## II. Dualism and the Status of the *A priori*

Hegel famously rejects a dualistic solution to the contemporary conceptual scheme/ world problem[4] in the introduction to *Phenomenology of Spirit*, where he argues against the idea that we cannot know things in themselves since this ends up substantializing our ignorance. The assumed fallible nature of knowledge seems to show that there is an unknowable reality that it cannot attain; but this is nothing more than a metaphysical commitment since we cannot know that reality in order to hold it over that which knowledge does provide.[5]

The rejection of dualism puts him in a place akin to realism, but the story is too complex to label him in this way and is linked to the position he will adopt in the face of the problem of demarcation (of knowledge) and its foundations.

Hegel approaches the question via Kant, who postulated that for the constitution of knowledge it is necessary to make a transcendental synthesis between empirical content

3 J. McDowell is famous for trying to make sense of this relation in contemporary analytic philosophy (see McDowell 1996), and a rich literature has grown up around his proposal (Pippin 2015; Guzman 2015; Perini-Santos 2018 – just to mention a few).

4 Davidson characterizes this distinction as the plurality of conceptual frameworks that are incapable of determining the reality of a single objective world, to the extent that he considers it another dogma of empiricism (Davidson 1984, 183–198).

5 „... sich eher als Furcht vor der Wahrheit zu erkennen gibt" (Hegel 1969a, 70).

and the pure concepts of the understanding (categories). The requirement for such a synthesis is that both the empirical content and the categories should be objective. In the *Phenomenology of Spirit,* Hegel's arguments are based on counterexamples ("what if we could explain the objective constitution of consciousness from empiricism?", "what if we could explain it from an organ in the body?", etc.) that show the constitution of the categories of consciousness cannot be explained transcendentally. We can briefly reconstruct this epistemological argument in the *Phenomenology of Spirit* from five general premises[6]:

(1) Knowing objects presupposes the unity of self-consciousness, and self-consciousness presupposes the existence of objects independent of it;

(2) The ground of the determinations of objects (categories) does not lie merely in self-consciousness;

(3) The ground of determinations that are the product of self-consciousness does not reside unilaterally in the individual;

(4) The ground of determinations that are the product of self-consciousness does not reside unilaterally in society;

(5) The ground of the determinations of objects and of self-consciousness can be found in the inseparable relation that both have with the absolute.[7]

The study of the absolute is, therefore, the study of the determinations of thought [*Denkbestimmungen*] or of the determinations which proceed from the identity between thought and objective reality, which means that both roughly possess the same objective ground. This objective ground cannot be presented as a principle, as Hegel explains in the introduction to the *Science of Logic*, because every foundation as a principle (which has metaphysical priority) is shown to be assumed by the same thought (logic) that discovers it (Hegel 1985, 27). In this way, logic must demonstrate how it constitutes its own objectivity as a process.

Meanwhile, the problem of the rational reconstruction of what we know about nature could be expressed by assuming a fundamentalism (e.g., a naïve empiricism) which reconstructs knowledge through the criterion of experience. It can also be explained from the perspective of social constructivism and coherentism, or by abandoning the idea that such a criterion has any normative performance, where reconstruction is a description of scientific activity. Hegel moves away from these positions by showing that demarcation is the foundation. To understand the Hegelian position, it is necessary to revise the alleged a

6 This synthesis is possible thanks to the excellent work of K. Westphal *Hegel's Epistemological Realism* (Westphal 1989). The present work is distanced from his conclusions. While Westphal claims that this thread of argument ends in a kind of epistemological realism, it seems that, if we are to be fair to the system elaborated in the *Science of Logic* and later works, Hegel calls for leaving behind the dichotomy of realism and (subjective) idealism, hence the resulting philosophy should not be qualified as such.

7 Which can be anticipated as the relationship between logic (the study of the absolute qua systematicity), nature (the objective world), and spirit, in the *Encyclopedia of the Philosophical Sciences* (*Enzyklopädie der philosophischen Wissenschaften im Grundrisse*, 1830 Edition, in Hegel 1969c and Hegel 1969d).

priori status of the categories of logic. On the one hand, the idea of grounding is linked to the idea of metaphysical priority, where ultimately one or a series of founding principles are shown through which reality is composed in a hierarchical way. Hegel is critical of this position since if there is a first principle, as pointed out earlier, it would be presupposed by logic itself, leading to the distinction between (philosophical) logic and logics[8] as a product of the Kantian understanding that operates according to principles.

The idea of grounding seems to be more closely linked to the idea of explaining, where the relationship between an antecedent as explanans and a consequent as an explanandum (in Hempel & Oppenheim 1965) cannot be thought of in deductive terms since it would preserve the same notion of metaphysical priority among some of the members.[9] It is a non-hierarchical explanation, where the concept to be grounded must show its dialectical constitution only through the determined negation.

Although during the development of the *Science of Logic* Hegel refers first to categories, then essences, then finally concepts, all these terms share the same reflexive dialectical structure that points to the journey from reality [*Realität*] to actuality [*Wirklichkeit*] expounded in the critique of the notion of the thing-in-itself (Hegel 1985, 102). Hegel points out the problem inherent in the thing-in-itself in a way that is different from (but complementary) to his critique of the danger of substantiating ignorance. Taken as a category, the thing itself is an incomplete (insufficiently explanatory) category since it focuses merely on what it includes and not on what it excludes, and as such it can lead to a misunderstanding of how a criterion (of explanation) should work. Spinoza's maxim cited in the preface to the second edition of the *Encyclopedia of the Philosophical Sciences* may explain this: truth is index sui et falsi.[10] Taken as a criterion, the thing-in-itself only tells us that the object exists, but we cannot determine its capacity to possess predicates, and it acts in much the same way as the notion of something [*Etwas*]: as an abstract concept that refers to anything as a token capable of possessing any predicate, but whose existence cannot be determined.

One of the most radical consequences of this is the abandonment of the a priori/a posteriori distinction. There is a great debate about the a priori status of the Hegelian logic in the *Science of Logic*; for example, Orsini (Orsini 2021) lists at least four and adds his proposal:

> 1) A priori, not a posteriori. Hegel's Logic is a priori because it carries forward Kant's project of a transcendental logic inquiring into the conditions of possible experience (…)

8 The distinction between das Logische [*Verstandeslogik*] and die Logik [*Vernunftlogik*]; we refer to an interesting analysis in Ficara (Ficara 2021, 12–40).

9 Although this notion is presented in the *Science of Logic*, the philosophy of nature as a contemporary philosophy of science would contrast with some of the most popular views on scientific explanation, like Hempel and Oppenheim (Hempel & Oppenheim 1965) who propose a model of explanation where the relation between explanans-explanandum is presented deductively and the explanans involves at least a law of nature.

10 Indicator of what it is true and false (Hegel 1969c, 31).

> 2) A priori as a mark of an aprioristic philosophy. This standpoint gathers a number of interpretations that aim to discredit Hegel's philosophy as an aprioristic metaphysics devoted to proving the primacy of divine thought (in Hegel's own terms, the logical idea) as a first cause of the world (…)
>
> 3) A posteriori, not a priori. The third group takes Hegel's Logic as an a posteriori reconstruction of the categories that have already appeared on the experiential ground of the history of philosophy and the sciences (…)
>
> 4) Neither a priori, nor a posteriori. The fourth group offers what may be called a neutralist view: Hegel's Logic is neither a priori nor a posteriori, because this distinction can only hold for transcendental philosophy, not for speculative philosophy (…)
>
> 5) Inclusivist [Orsini's stance]: Hegel's Logic is both a priori and a posteriori, because it transforms this distinction into the differentiation of one idea into the complementary features of activity and passivity (Orsini 2021, 49–51).

The position I want to defend will coincide with number (4); however, I would prefer not to assume the label of naturalism because the result will not be entirely compatible with a naturalistic epistemology. I will argue that it is necessary to dispense completely with the a priori/a posteriori distinction when referring to the categories of Hegelian logic, since to preserve the distinction (even if we characterize the categories as a posteriori) would presuppose some kind of a priori somewhere in the system.[11]

A superficial reading might lead us to think that Hegel employs the terms immediate [*unmittelbar, Unmittelbarkeit*] and mediated [*vermittelt, Vermittlung*] as synonyms of a priori/a posteriori. Although initially one can find in these terms a certain relationship with a priori/a posteriori respectively, "immediate" is not necessarily comparable to a priori, it merely indicates that which has not been reflected upon; that which is taken as valid either because it was the result of a careful analysis beforehand, or that which simply has not been questioned regardless of whether it should continue to be taken as valid or not.

Kant had pointed out that the most problematic type of judgments for the constitution of knowledge were synthetic a priori judgments; however, Hegel claims that Kant could have encountered these problems by only attending to the logical form of the Judgment, which goes from a Universal term to a Particular. For Hegel, the sole predicative form (Universal to Particular) indicates that all judgments are synthetic and not analytical (Hegel 1969b, 38–41). Thinking (as the activity of speculative reason) involves experience, that is, experience is not only sensory, pointing out that self-evident content is not possible, and that any synthetic content need not be a priori since there

11 This does not mean that it is not possible to speak of a priori or a posteriori in the resulting epistemology, but that such concepts could not be applied normatively in the terms that will be specified through the rest of the work.

would no longer be self-evident content with which to compare its status.

To clarify the above interpretation, let us consider the following example: an average adult throughout their education is informed about various arguments that demonstrate that the earth is round. However, when they encounter a skeptic of science, they might not remember exactly how those arguments worked (or even what they were), mainly because they turned them into facts that have an immediate performance within the compendium of things that they take as true about the world. In this case, the belief that the earth is round has the same status in the mind of an individual who does not remember the supporting arguments, just as any other belief that may not be adequately justified is merely taken to be true. The process of justification would consist in the subject's reflection on the content that they held as a belief in this immediate performance (the validity of that belief), realizing that they do not remember the specific arguments that justified said belief. If they are committed to the truth, they will seek those vital arguments to demonstrate the roundness of the earth, which is the very process of mediation and reflection, the product of which is now actuality, i.e., the belief taken as true immediately and the arguments that rightly demonstrate and mediate/explain it. Knowledge is the product of reflection as reflection becomes speculative thought.[12]

## III. Demarcation and Grounding

The next problem is to show how a criterion of demarcation can ground knowledge, where such a critique is found through the sections of Essence, Essentialities, and Ground in the second book of the *Science of Logic*.[13]

For Hegel, there is a profound contradiction in the notion of essence, especially if we take the performance of essence as an a priori or analytical concept. The question of the essence of being is answered by something other than being. Essence fails as an explanandum of being. Hegel points out that essence then becomes a kind of negation because instead of showing what it is supposed to determine, it superficially shows what it is not, putting itself forward as a kind of "appearance" [*Schein*].

The category of "appearance" presupposes the immediate content of which essence intended to be, but it emphasizes how essence – insofar as it is a type of appearance – is not that content [*an sich*]. This relation between what a category shows immediately, and now mediately [*an und für sich*], is what Hegel calls reflection of essence (Hegel 1969b, 24), which shows what the category includes and what it excludes, reconciling both aspects (immediate and mediated) and constituting content in its actuality.

If we omit the strictly metaphysical performance of the concepts put into play

12 According to Solomon, knowledge is not the same as reflection; reflection, Hegel argues, reaches its limit in the Kantian understanding, then the journey to reason [*Vernunft*] as speculation is necessary (Solomon 1974, 279, footnote 6).

13 *Der Schein, die Wesenheiten, der Grund* (Hegel 1969b, 17–124).

here, we can explain the argument more in accordance with the needs of contemporary epistemology: by investigating the nature of an object we end up defining that object. However, defining an object does not end up exhausting it; quite the contrary, depending on the frame of reference of our definition, we could generate different characterizations of the object with different referents in turn. What Hegel seeks to point out here is that reflecting on the set of definitions is what integrates the object, and not the appeal to an object 'in itself' (or noumena). Therefore, the object is not "unreflectively" placed a priori, but it is through the multiple definitions that the object is determined for what it is.

Thus, the question "what is an object?" becomes quite misleading. It has a simple answer: it is what we usually answer about whatever we are asked (a chair, a book, etc.) depending on a certain context, a specific vocabulary, a given language game, etc. That is, answering what an object is immediately. But the philosophical question "what is an object" is not really asking about its "objectual-ity" (the property which constitutes the materiality of the object), but about what determines it as objective, what grounds it, or how it is constitutive of knowledge. This question is possible through speculation and is answered only through speculation; where the object becomes a criterion of itself (index sui et falsi) and the object actualizes the immediate sense of "what it is" with the multitude of possible definitions, showing how the object constitutes knowledge through these and its history of definitions and pointing out what it is and what it is not. A criterion of demarcation becomes a criterion of foundation.

The question of objectivity concerns that property of being a criterion (of objectivity), its determinacy [*Bestimmtheit*], and therefore, being able to ground itself through speculative reflection. The absolute idea is the abstraction of this process, it is the very property of the system to be the criterion of itself through its necessity. However, the idea of necessity seems to be another obstacle to understanding the process of demarcation/foundation.

## IV. The Necessity of the Concept

Hegel responds to the problem arising from the conflict between necessity and contingency with what he calls absolute necessity. It is important to note that the answer does not consist in opting for determinism (in the usual philosophical sense) or contingency; the problem lies in taking the normative performance of these concepts to be immediate.

Both determinism and contingency are taken as a "way of being" of reality itself, but both are metaphysical assumptions. Reflecting on them (what is their foundation?) calls into question the knowledge we have of reality itself, showing that they are just immediate ways of deterministically or contingently understanding reality. Necessity is then the criterion of necessity itself, through which a deterministic or contingent description

could be held to be objective, showing that, as a criterion, necessity is contingent.[14]

Let us consider one more example: when asking a question, it is reasonable to expect an answer, but it is also reasonable to not get one. The question continues to narrow down what counts as an answer and what does not. Getting an answer actualizes the question: did it answer it? Was it a good or bad answer?

A criterion works in the same way, insofar as it dictates what satisfies it and what does not, and states that we can obtain some content or none that satisfies it; that the property of being a criterion is not dependent on its fulfillment. This is what Hegel means by necessity being contingent. Returning to the object, knowledge (of the object) is only possible through actuality, where the object, as a criterion of its own objectivity, finds some content (the historical, ontological and epistemological constitution of itself) that satisfies it.

The Absolute Idea (Idee) shows this performance, it responds to the problems pointed out at the beginning and allows the rational reconstruction of nature under the aforementioned scheme. The idea is the logical instance of systematicity, i.e., the necessity (in the terms set out above) of the property of being a criterion [*Bestimmtheit*] of each category (i.e., of the categories as a whole) abstracted and applied to the idea of what a philosophical system (of knowledge) would imply. Knowledge thus exhibits its objective (actuality) necessity (contingency).

The next step is to show how the idea finds its material (external) form in objective reality. This means answering the question of how the determinations of thought (*Denkbestimmungen*) are possible in objective nature.

## V. The Link between Nature and the Categories

The debate around the notion of "force" is a very interesting example of the link between nature and the categories, starting from the relation of "force" with the notion of "matter" in physics. Since Newton's time, there has been a transition from a corpuscular conception of matter (which characterized matter as discrete, inert, and impenetrable, pointing out that no force could be inherent in matter and that all changes in matter would be the result of non-material causes), to a theory of matter as dynamic, possessing active forces, attributed first to chemistry and later to Newtonian physics (Westphal 2008, 289–290).

Kant tried to make sense of this in the *Metaphysical Foundations of Natural Science*, where he points out that the metaphysical component of science shows the real or

14 "Aber damit ist diese Wirklichkeit – weil sie gesetzt ist, absolut, d, h. selbst die Einheit ihrer und der Möglichkeit zu sein – nur eine leere Bestimmung, oder sie ist Zufälligkeit. Dies Leere ihrer Bestimmung macht sie zu einer bloßen Möglichkeit, zu einem, das ebensosehr auch anders sein und als Mögliches bestimmt werden kann. Diese Möglichkeit aber ist selbst die absolute; denn sie ist eben die Möglichkeit, ebensosehr als Möglichkeit wie als Wirklichkeit bestimmt zu werden. Damit, daß sie diese Gleichgültigkeit gegen sich selbst ist, ist sie gesetzt als leere, zufällige Bestimmung" (Hegel 1969b, 213).

physical possibility of a scientific theoretical concept from the concept itself. According to Buchdahl,

> The category (…) only forms a conceptual mould, to apply to the analysis of the physicist's concept. 'Possibility' here means applying the categories to the empirical concept in such a way as to allow of the application of mathematical construction (…) providing a 'metaphysical foundation' (Buchdahl 1993, 22).

Hegel thinks of the Kantian approach as a great advance. It does not posit matter where the possible forces are extragenous and unrelated to it, and then those forces are placed inside of it necessarily: the concept of matter involves the forces instead being part of its conceptual determination (Buchdahl 1993, 23). Yet, in the philosophy of nature (according to Hegel's *Encyclopedia*) this is still too empirical for Hegel, since it starts from the perception of any given determinations (the forces) and only then does Kant consider forces as the foundation of the phenomenon, hence this stance falls back on the problem that both matter and forces must be self-subsisting entities (Buchdahl 1993, 23–24).

Hegel criticizes this too in the *Phenomenology of Spirit*, pointing out that if we consider a singular object (e.g., matter) to be a set of universal properties (forces), we fail to show how these universal properties are held together in the object since their subsistence does not depend on the object, i.e., the reason for their union, or the possibility of force is constituted exactly as a scientific law, showing that the notion of force is inadequate. Going further, Hegel implies that the way laws are linked to each other is different than the way phenomena are linked between each other, i.e., the law (of laws or the property of being legal of laws themselves, their legality) that we seek is the understanding itself.[15]

The content of laws is phenomenal, but the conceptual structure of laws is logical. Since dualism is not an option and determinations [*Bestimmtheiten*] must find their root under the identity of being and thought, Hegel proceeds in a Kantian way by expounding the possibility of the concept in question in conformity with the categorical network of the logic (Buchdahl 1993, 24) with the nuances set out in the previous points of this work (e.g., rejecting the a priori/a posteriori distinction, etc.).

The project of a logic without presuppositions (Hegel 1985, 27), whose method is identical with its content, does not mean that logic is a priori or atemporal; it means it cannot deductively present its procedure from some kind of principle which it has to take as immediately objective. On the contrary, every principle must show its objectivity in its relation to the rest of the historically determined categories.

In the *Science of Logic*, Hegel employs a similar strategy to that in the *Phenomenology of Spirit* where, given the immanent character of the analysis of consciousness, the use of any product of consciousness (historical situations, religious passages, literary images, etc.) can be illustrative of the condition of consciousness itself. Thus, the use of notions

15 „Es zeigt sich, daß hinter dem sogenannten Vorhange, welcher das Innere verdecken soll, nichts zu sehen ist, wenn wir nicht selbst dahintergehen, ebensosehr damit gesehen werde, als daß etwas dahinter sei, das gesehen werden kann" (Hegel 1969a, 135–136).

such as "attraction" and "repulsion" represent "pictorial expressions" of a strictly logical process that obtains physical significance when Hegel introduces matter as a category (Buchdahl 1993, 24).

The relationship between the logical construction of the concept of matter through the categories of attraction and repulsion, and the resulting physical concept of matter in the *Encyclopedia*'s philosophy of nature, suggest a more complex idea than might be found in mere categorical realism. The origin and formation of the philosophy of nature presupposes and is conditioned by empirical physics (Hegel 1969c, 15), which means that the categories are not isolated but are historical-conceptual developments. The philosophy of nature – just like the logic – does not take the conceptions of the empirical sciences as objective a priori, but as immediate, showing that their objectivity is possible through the conceptual mediation that develops their rational reconstruction in terms of the criterion of demarcation/grounding that is the Idee.

In the philosophy of nature, Hegel characterizes matter as the result of the concept of gravity, taken as a criterion of attraction and repulsion applied to physical reality (Hegel 1969c, 60). Matter is thus the actualization cum rational reconstruction of the logical categories of attraction and repulsion, expounded necessarily and systematically in the theory of universal gravity. Here all the different axes are shown coinciding in the concept of matter: on the one hand, there is the purely logical constitution of the categories of attraction and repulsion, on the other, the theoretical notion of gravity, concretized in the empirical concept of matter.

Precisely for this reason, one of Hegel's arguments against Newton's purely mathematical demonstration of Kepler's laws is that mathematical analysis cannot establish the reality of Kepler's laws of physics, since Kepler's laws are "(…) phenomenological in the sense that they merely describe regularities in manifest, observed phenomena" (Westphal 2008, 289). Hegel's critique would be aimed at pointing out the lack of reality (as actual, *Wirklichkeit*) in Newtonian analysis, given that in terms of "logical, epistemic, or metaphysical necessity (...), natural phenomena could instantiate any mathematical function, or none whatsoever" (Westphal 2008, 293).

## VI. A Contemporary Philosophy of Nature

In the previous sense, quantum physics represents a turning point. The position of a historical Hegel would most likely agree with the Einstein, Podolsky, and Rosen's paper "Can Quantum-Mechanical Description of Physical Reality Be Considered Complete?" (Einstein, Podlsky, & Rosen 1935) against the model of the nascent Copenhagen interpretation that characterizes the state of a system as a mere list of its observable properties and where simultaneous measurements would be inconsistent (Bub 2008). Einstein and his colleagues believed the Standard Model's description of reality was incomplete, and their objections expressed in that article opened the way for future interpretations of quantum

physics that sought to make sense of the theory by imagining the possibility of hidden variables.[16] From this point of view, a philosophy of nature would have no choice but to hope for a unification theory that would satisfy, if not a strict reductionism between theories (general relativity and quantum physics), a clearer systematic criterion of what physical reality and nature must be. Faye summarizes some of these problems:

> The conceptual reconstruction would be affected by a series of metaphysical commitments of what reality should be and not of what a theory (quantum physics in this case) shows us about reality, for instance, quantum physics rejects different basic ontological principles of classical physics such as, a) the principle of time and space, b) the principle of causality, c) the principle of determination, d) and the principle of continuity (Faye 2008).

The problem lies in the ontological principles (violated by quantum physics) that we hold to be essential features of reality. A rational reconstruction from the perspective of a contemporary philosophy of nature should seek to underline the danger of such metaphysical commitments which clearly were not evident in Hegel's time and show what's already been discussed: the fact that reality can instantiate any given logical determinations only shows the possibility of understanding reality immediately, for objectivity must be presented systematically and through speculative reflection. That is, such a reconstruction must resist the temptation to assume that the role of a philosophy of nature is just to evaluate which theory is better in empirical and functional terms; rather, it should assume that it is to show the objectivity of our knowledge not in terms of what it ought to be, but of what already is.

Before proposing an outline of what a contemporary Hegelian philosophy of nature would entail, it is necessary to address the elephant in the room: Hegel's philosophy of nature no longer finds a correlate in contemporary science. This, however, is by design, since the Hegelian system aims to reflect on the current state of knowledge, not to predict it. Thus, a contemporary philosophy of nature would imply not only finding the logical determinations in the concept of nature of our time, but also starting the system anew through the development of the necessity of the absolute in accordance with the philosophical sensibilities of our time. Although in the light of works such as the *Science of Logic* this task is presented like an insurmountable challenge (how can we penetrate the labyrinth of determinations of Hegelian thought so carefully strung together?). Fortunately, it is not a question of re-writing logic as if it were a deductive whole: re-writing Hegel's logic as a deductive whole would lead us to presuppose the absolute a priori, taking the idea of the non-absolute as a circle that has no center (a holism not unlike a monism), when the goal should be to understand that any place can be taken as its center, following Hegel's idea that every principle is only the starting point from which to begin our explanations and is only pedagogical and not foundational (not metaphysically a priori). To explain any concept qua thought determination [*Bestimmtheit*] would entail

16 This is the meaning behind Einstein famous quote "I, at any rate, am convinced that [God] does not throw dice" in a reply to Max Born (Einstein 1971, 91).

the development of the absolute as systematicity itself.

Thanks to Hegel and his monumental work, it is not necessary to demonstrate again the necessity of the absolute (what is necessary is to translate these arguments into a language that can be understood by the philosophy of our time). It is in fact possible to start from the pure immediacy of the absolute. But this is different to Schelling's critique of Hegel (as we saw in the characterization number 2 of the a priori with Orsini 2020, 49–51) pointing out the absolute is posited at the base of the system as a presupposition with metaphysical priority, which extols this ouroboric reading of Hegelianism. On the contrary (it is useful to return to the example of "asking a question" in Section IV), asking about "the objectivity of" is possible from the property of systematicity itself, as that is a property of necessarily being a criterion [*Bestimmtheit*], where necessity is not the prescription of that criterion but its contingency as a possibility. Therefore, it would be possible to at least take a deep breath, and avoid committing ourselves to a description that carefully reconstructs through triad after triad the relationship and function of the different sciences and their objects of study, since systematicity is already placed in the dialectical development, and perhaps it is far more important for contemporary philosophical sensibilities to now show this facet (avoiding suggesting more hierarchies) which reconciles both epistemological pluralism and multi-disciplinary approaches, as it presents a legitimate alternative to reductionism, while providing the rational reconstruction required by epistemology.

## References

Beiser F. 2003. "Hegel and Naturphilosophie", *Studies in History and Philosophy of Science Part A* 34(1):135–147. https://doi.org/10.1016/S0039-3681(02)00083-3

Berger B. 2023. *Schelling, Hegel, and the Philosophie of Nature, from Matter to Spirit*. New York: Routledge.

Bliss R. & Priest G. (Eds.) 2018. *Reality and Its Structure*. Oxford: Oxford University Press.

Buchdahl G. 1993. "Hegel's Philosophy of Nature and the Structure of Science," in R. Stern (Ed.), *G. W. F. Hegel: Critical Assessments*, Vol. 4 (pp. 15–40). London: Routledge.

Bub J. 2008. "Quantum Entanglement and Information," *The Stanford Encyclopedia of Philosophy (Winter 2008 Edition)*, ed. by E. N. Zalta, http://plato.stanford.edu/archives/win2008/entries/qt-entangle/

Correia F. & Schnieder B. (Eds.) 2012. *Metaphysical Grounding: Understanding the Structure of Reality*. Cambridge: Cambridge University Press.

Davidson D. 1984. "On the Very Idea of a Conceptual Scheme," in Idem, *Inquiries into Truth and Interpretation* (pp. 183–198). New York: Oxford University Press.

Deligiorgi K. (Ed.) 2006. *Hegel, New Directions*. Trowbridge: McGill-Queens University Press.

Einstein A., Podolsky B., & Rosen N. 1935. "Can Quantum-Mechanical Description of Physical Reality Be Considered Complete?" *Physics Review* 47(10):777–780. American Physical Society, USA. https://doi.org/10.1103/PhysRev.47.777

Einstein A. 1971. "Letter to Max Born 4 December 1926," *The Born-Einstein Letters* (pp. 90–91). Trans. by I. Born. London: Macmillan.

Faye J. 2008 (2002[1]). "Copenhagen Interpretation of Quantum Mechanics," *The Stanford Encyclopedia of Philosophy (Fall 2008 Edition)*, ed. by E. N. Zalta. http://plato.stanford.edu/archives/fall2008/entries/qm-copenhagen/

Ficara E. 2021. *The Form of Truth: Hegel's Philosophical Logic*. Berlin: De Gruyter.

Guzman L. 2015. *Relating Hegel's Science of Logic to Contemporary Philosophy*. New York: Palgrave Macmillan (Kindle Edition).

Hegel G. W. F. 1969a. *Phänomenologie des Geistes* (abbr. PG), ed. by E. Moldenhauer & K. M. Michel, *Werke*, Vol. 3. Frankfurt am Main: Suhrkamp.

Hegel G. W. F. 1969b. *Wissenschaft der Logik II*, ed. by E. Moldenhauer & K. M. Michel. *Werke*, Vol. 6. Frankfurt am Main: Suhrkamp.

Hegel G. W. F. 1969c. *Enzyklopädie der philosophischen Wissenschaften im Grundrisse, Erster Teil Die Wissenschaft der Logik Mit den mündlichen Zusätzen* (abbr. ENZ I), ed. by E. Moldenhauer & Karl M. Michel. *Werke*, Vol. 8. Frankfurt am Main: Suhrkamp.

Hegel G. W. F. 1969d. *Enzyklopädie der philosophischen Wissenschaften im Grundrisse, Zweiter Teil: Die Naturphilosophie mit den mündlichen Zusätzen* (abbr. ENZ II), ed. by E. Moldenhauer & K. M. Michel. *Werke*, Vol. 9. Frankfurt am Main: Suhrkamp.

Hegel G. W. F. 1985. *Wissenschaft der Logik I, Erster Teil die Objektive Logik*, ed. by F. Hogemann & W. Jaeschke. *Gesammelte Werke*, Vol. 21. Hamburg: Felix Meiner.

Hempel C. G. & Oppenheim P. 1965, "Studies in the Logic of Scientific Explanation," in C. G. Hempel, *Aspects of Scientific Explanation and Other Essays in the Philosophy of Science* (pp. 245–290). New York: Free Press.

Houlgate S. (Ed.) 1998. *Hegel and the Philosophy of Nature*. New York: State University of New York Press.

Jago M. (Ed.) 2016. *Reality Making*. Oxford: Oxford University Press.

Lucas G. R. 1993. "A Re-interpretation of Hegel's Philosophy of Nature," in R. Stern (Ed.), *G. W. F. Hegel: Critical Assessments,* Vol. 4 (pp. 41–51). London: Routledge.

McDowell J. 1996. *Mind and World*. Cambridge: Harvard University Press.

Ng K. 2020. *Hegel's Concept of Life, Self-Consciousness, Freedom, Logic*. New York: Oxford University Press.

Orsini F. 2021. "Hegel's A Priori and the Critique of Three Aprioristic Readings of the Science of Logic," *Hegel Bulletin* 43(1):47–68. http://doi.org/doi:10.1017/hgl.2021.23

Perini-Santos E. 2018. “A Second Naturalization for a Second Nature,” in F. Sanguinetti & A. J. Abath (Eds.), *McDowell and Hegel: Perceptual Experience, Thought and Action* (pp. 177–192). Cham: Springer. https://doi.org/10.1007/978-3-319-98896-2

Pippin R. B. 2015. *Interanimations*. Chicago: University of Chicago Press (Kindle Edition).

Quine W. V. 1969. “Epistemology Naturalized,” in Id., *Ontological Relativity and Other Essays* (pp. 69–90). New York: Harvard University Press.

Raven M. J. (Ed) 2020. *The Routledge Handbook of Metaphysical Grounding*. New York: Routledge. https://doi.org/10.4324/9781351258845

Solomon R. C. 1974. “Hegel’s Epistemology,” *American Philosophical Quarterly* 11(4):277–289.

Westphal K. R. 1989. *Hegel’s Epistemological Realism*. Dordrecht: Kluwer Academic Publishers.

Westphal K. R. 2008. “Philosophizing about Nature: Hegel’s Philosophical Project,” in F. C. Beiser (Ed.), *The Cambridge Companion to Hegel and Nineteenth-Century Philosophy* (pp. 281–310). Cambridge: Cambridge University Press.

Winfield R. D. 2006. *From Concept to Objectivity, Thinking Through Hegel’s Subjective Logic*. New York: Routledge.

*Ethics in Progress* (ISSN 2084-9257). Vol. 15 (2024). No. 2,
Art. #6, pp. 91-104. DOI:10.14746/eip.2024.2.6


# *Natural Becoming: From Bad Infinity Towards an Open Dialectic? Contemporary Issues Moving From Hegel's Philosophy of Nature*

Giorgio Erle

(Università degli Studi di Verona, Verona, Italy; giorgio.erle@univr.it)
ORCID: 0000-0003-1901-2995

**Abstract:** In Hegel's Philosophy, natural time is the engine of bad infinity, presenting itself through disappearance. Nevertheless, as one proceeds towards the higher levels of the realm of exteriority, this force from abstract becomes increasingly real until it becomes part of vital processes in the organized subjectivity, such as that of the living organism that "knows" and uses this becoming as a force to its advantage, e.g., in the forms of metabolism. This effective meaning of natural becoming seems to us to have been particularly highlighted in the 20th–century in the "Philosophical Biology" of Hans Jonas, whereby even the elements of failure (e.g., in the animal's procurement of food) are grasped as expressions of a distinctive trait of the subject, namely its capacity to bear the negative and with this to establish mediation.
Even the mortal limit, which is what leads to the conclusion of the *Naturphilosophie* requiring the elevation to the Philosophy of Spirit in Hegel, according to Jonas, takes on, within the human awareness, a renewed ontological value that allows life to flourish again and with this makes human beings able to ask themselves what kind of world they want to hand over (also with environmental regard) to future generations. If this is the case, then a role for *Naturphilosophie* becomes highly topical about producing an "open dialectic" invoked many times in the philosophical paths of the 20th century.

**Keywords:** Hegel; Jonas; Philosophy of Nature; becoming; open-ended dialectic; metabolism; Hermeneutics.

## I. Introduction

This paper aims to verify the possibility of a hermeneutic approach to Hegel's Philosophy of Nature, such that the natural processualism that initially manifests itself only as an externality can also become a chance, given the realization of an open dialectic. In doing so, living subjects can use the limit and the experience of natural negativity and finiteness to unite their becoming. From this perspective, the most stimulating comparison will be that with the "Philosophical Biology" by Hans Jonas, and yet a brief passage through the thoughts of Habermas and Ricoeur will allow access to some hermeneutic tools that are particularly useful here.

Achieving this goal in the way we have just described it is essential for two reasons:

(1) On the one hand, the dialectic of *Naturphilosophie* is not conclusive in itself. For

Hegel, the finiteness and the limit imposed by natural exteriority necessarily entail the passage to a higher level of understanding, that of the *Philosophy of Spirit*. This is precisely the limit of Nature, but if we look at this from a Jonasian point of view, we realize that this is the reason why the Philosophy of Nature does not and cannot lend itself to the criticism of being supposed to be an immanent and "necessary" success story which Jonas instead addresses to the Philosophy of History by Hegel. All this in no way intends to lead to pessimism, much less to nihilism, but instead returns to posing the great ontological question in Leibnizian style on a natural level (Jonas 1984, 47–48).

(2) In this way, it seems to us that a contribution is coming from the outside, that is, from Jonas's philosophy, to support what, from within research on Hegel, *Hegel-Forschung* has been pointing out over the last 40 or 50 years now: Philosophy of Nature is an essential part of the system and without it one cannot truly understand Hegel's philosophy as a whole. This should even be obvious when talking about a system of philosophy in general and even more so when dealing with a system that presents itself as a living organism. Yet, we know that, historically, Hegel's system has not always been read as a whole. Therefore, this paper also wants to contribute from this exegetical point of view in favor of the role of the Philosophy of Nature within Hegel's system.

## II. The Natural Limit of Time: Exteriority and Unmediated Mediation

It is true that the understanding of time and space in Hegel's Philosophy of Nature is so relational that it allows for interesting points of comparison with the visions of twentieth-century physics; on the other hand, precisely because of this, it is clear that if the temporal dimension remains at the mercy of itself, isolated from the rest and therefore first and foremost isolated from space, it also remains meaningless or precisely relegated to the lack of an actual dimension. Within a mere ideal – in Hegel's German lexicon, we should say "ideel" (Hegel 1992, § 258, 247) – understanding of time, what is missing is the determining function of time itself. That is the actual effectiveness of that function. As already in the Aristotelian view, the temporal instant had the meaning of determining according to a 'before' and an 'after', here too: if those before and after are not really there, then time loses its meaning. Hence, it is interesting to reread Hegel's Philosophy of Nature by looking at the history of philosophy and by using a twentieth-century view of relativity as a hermeneutic criterion. In the latter way, we can examine the valence of time as the fourth dimension of space within the entire natural course (on this: Wandschneider 1982).

Still, let's think of the ideality of time in itself, returning to Hegel. At the beginning of the *Naturphilosophie*, it constitutes something one-dimensional, the infinite repetition of the identical. And it is an infinity incapable of being a whole; in the phenomenological sense, it is, therefore, incapable of being 'true.' It's a bad infinity. "Boredom" (Hegel 1986, 189): not only in an existential sense but also in the lack of diversification of determining.

As in many other cases in Hegel's thought, here, too, immediacy is a lack of truth because it is incapable of understanding diversity. We seem to be dealing with an identity, that of a being that also is not, and vice versa (Hegel 2004, § 258), but this does not constitute a true identity at all because it does not comprise a processualism. It is not a whole. That is why this leads to non-dimensionality: what was already a determining element par excellence in Aristotelian Physics, the instant, the temporal point-time, if it only repeats itself always identically and continuously, does not determine anything at all (Hegel 1986, 189; Hösle 1988, 306–312) and then time is a negative indistinct, a quality without real quality; meanwhile, space remains a positive indistinct, quantity without actual quantity. Without relating, both remain, so to say, 'dimensionless dimensions'. Simple and repeated lack of interiority, mere exteriority: time as subjectivity without subject (because still incapable of relating to the object), space as objectivity without object (because still incapable of relating to the subject). In its remaining empty ideal, natural exteriority mediates without mediating.

On the other hand, already in Aristotelian Physics, the instant could perform its decisive function insofar as, together with another instant, it made it possible to measure the beginning and end of a period, of an interval, of a temporal quantity. Processualism, the flow of diversity, allowed the genuine otherness of the second "point-hour" of the second instant. Without this "being-between," there is no true otherness. The "being-between" mediates and likewise differentiates. More precisely, while it differentiates, it mediates.

## III. Difference and Dialectical Process

Thus, the transition from ideality to reality in nature can also be read as a progressive path of concretization of mediation. The overcoming of mere natural exteriority takes place through effective mediation, that which knows how to bring the forms of difference back to a unitary process without eliminating them, on the contrary, making them strong. For Hegel, this is the typical capacity of the individual. He defines the earth in this way already in the physical sphere (Hegel 2004 § 285, 113), the archetypal element that brings together and enables its relationship with the other elements (fire, air, and water) to unfold in a unitary and processual form; but this does not remove the difference from mediation at all. Fire continues to burn; air continues to consume; without this, any dialectics between the elements would not be possible. Without this consuming action, the earth itself remains initially indeterminate. And yet, that this negativity can become effective and real is guaranteed by an effective mediation, such that it makes the relationship between elements a physically actual process (Hegel 2004, §§ 281–285, 105–113). And if, very succinctly, we look at the successive and higher stages of natural development, a similar processual unity passing through negativity is also to be found in aspects of individual physics, as we can grasp from a couple of examples of what Hegel calls the "Physics of the Particular Individuality": what the phenomenon of elasticity

and that of sound have in common is the constitution of a unity that passes through the negation of spatial indifference (Hegel 2004, §§ 297, 299–301, 133–134; 136–147). The role of individuality emerges in giving a dialectical unity that is here declined according to particularity. This type of reading would also be interesting for what we today call the alternating electric current; however, this reference would also find its initial foundation in that difference of potential, in that opposition between positive and negative that Hegel himself already emphasized in the electrical phenomenon (Hegel 2004, §§ 323–325, 220–232).

On the other hand, with this type of processualism, according to Hegel, we have, in effect, entered "The Physics of the Total Individuality," of which the chemical process represents the highest realization and, at the same time, also the limit (Hegel 2004, § 335, 269–270): here the most authentic meaning of the *telos* is not yet achieved either from the point of view of individuality or from that of its realization as an organic unity. The chemical process does not yet realize an internal goal, so the outcome differs from what started the process. The chemical process, taken by itself, comes dialectically close to the individual meaning of life and yet never reaches it: this is why Hegel writes that it is life "in general" [*im Allgemeinen*] (Hegel 1992, § 335, 342): there is no internal individual unity. We can recognize here a limitation that we have already pointed out on other levels, whereby with a contradictory and dialectical formula, we can go so far as to say that the chemical process is life, but still without life. As mentioned earlier, the reason that Hegel provides is decisive and illuminates, by contrast, the link between *telos* and organic life: the lack of identity between beginning and end requires the passage, *der Übergang,* towards the living organism. The latter is, for Hegel, the most accomplished realization of individuality on a natural level precisely because it enacts the internal purpose expressed in the self-maintenance process. The organic process "spontaneously kindles and sustains itself" (Hegel 2004, § 336, 270). This statement is perfectly consistent with an earlier one belonging to the Jena period that made the difference to the chemical process even clearer: organic processualism is whereby "the beginning is the same as the end" (Hegel 1976a, 110). These considerations also allow us to emphasize a particular moment in the organism's life and its conceptual being, whereby the presence of the logical element can be recognized in the nutritional functions. Here, the conceptual connections are much more evident if we bear in mind both the systematic writings of the Jena period and the *Encyclopaedia*: it is not difficult to realize that in Hegel (Hegel 1975, 217–221), the first part of the living organism's nutrition, that of the ingestion of food and its mastication is characterized at a mechanical level, but with this it achieves the first step necessary to make possible the transformation of food that occurs during the chemical phase of digestion, because of the availability of the nutrients, to maintain the organism's life process. The logical structure is prominent: Mechanism-Chemism-Teleology (Hegel 2013, §§ 195–212, 381; on this: Illetterati 1995a, 219–287). These observations will be helpful when we address the metabolism issue in Hans Jonas's "Philosophical Biology" and try to

find the dialectical aspects appearing in that vision.

There is another meaningful example in Hegel's Philosophy of Nature regarding the productive capacity of dialectical opposition at the organic level for self-maintenance: the relationship between animal organisms and gravity. Animals move freely, not so much despite gravity, but instead and above all, thanks to their opposition to it (Hegel 1976b, 292). They may seem like nuances in the way they are expressed. Still, the concreteness of the difference can be observed, for example, in terms of the effective relationship between movement and traction, in which the gravitational constraint guarantees the effectiveness of the translation movement and originally manifests itself through friction. Not to mention the importance of gravity for the development and maintenance of the skeletal structure, the muscular system, and the functioning of the cardiovascular system: today, it is possible to observe the organic effects of what, in Hegelian style, we might call the 'lack of opposition' for those living in microgravity conditions. The subject is a medical one, and we will not go into it; however, it is sufficient for us to observe that the question "Can We Resist Microgravity?" (Bonanni, Cariati, Marini, Tarantino, & Tancredi 2023, 8–12) also has its relevance and interest in the philosophical perspective we have just mentioned.

## IV. Limit as an Expression of Natural Finiteness

So, in the vision of the Philosophy of Nature, the forms of the negative can be used by individual processes, managing to have productive effectiveness and dialectical continuity. Yet the negative power of time is always maintained. If we want, natural becoming 'uses' it increasingly refined and effectively, up to the organism's self-maintenance capacity, to internal teleology. However, the limit linked to finiteness, to consuming itself, still unites all natural manifestations. The process implemented by the individual is never eternal and could not be; indeed, we can observe that generally, the more it is refined in the manifestation of the individual being, the shorter its temporal duration. Today, we know that in the case of the earth, if thought of as a planet, the scale of understanding the process is in the order of billions of years. This processualism concerning the earth is also very interesting to observe for its transversal values within Hegel's Philosophy of Nature, even intratextual, we might say, because it can be understood at the level of the planet (Hegel 2004, § 280, 103), at the level of archetypal element (Hegel 2004, § 285, 113) and finally at the level of geological organism (Hegel 2004, §§ 338–342, 277–303); in the case of the living organism, on the other hand, the understanding is in the order of hundreds of years, when considering particularly long-lived life forms. We know that, concerning the role of living organisms, Hegel deals with the question philosophically, explaining that the natural individual can't realize that complete universality that is in the genus, except in a singular form (Hegel 2004, § 369, but § 370 in Third Edition of *Encyclopaedia*, 414; on this see Liccioli 2008); which seems to us to make sense both concerning the meaning of the

naturalistic classification of genus, but also from a logical point of view if we understand genera in Aristotelian terms as predicament. Stefania Achella has recently highlighted how important this genus issue is for comparing ethical and biological life within Hegel's thought (Achella 2019, 162–169).

## V. For a Hermeneutics of the *Naturphilosophie*: The Possibility of a Comparison with Twentieth-century Perspectives

We now want to look at the Philosophy of Nature from the point of view of a comparison with certain aspects of 20th-century philosophy. In that case, it is crucial to preliminarily grasp elements that seem very relevant from an interpretative point of view:

(1) A first question concerns the quality of subjectivity: the negation operated by the temporal instant is indeed placed on the subjective level and, in this way, can pose and oppose itself in dialectical relation to the objectivity of space. However, according to Hegel, this natural subjectivity never manages to understand itself in the fully conscious, proper form of self-consciousness. Put another way: if one can recognize a processual unity in natural phenomena, the more one proceeds towards their elevation to the organic level; nevertheless, the degree of subjectivity present in them will never be so elevated as to be able to say of themselves 'I.' Hans Jonas will observe that the problem of time understood as a pure a priori form of intuition is precisely that of failing to recognize a privileged role in the relationship between time and self-consciousness (Jonas 2001, 132–133, remark no. 2). The possibility of comparison with Hegel's thought is evident; the definition of "Becoming directly *intuited*" that Hegel had already reserved for natural time means precisely this: the principle of self-consciousness, which even in the subjectivity of time ideally resides, remains totally abstract and external to it (Hegel 2004 § 258 and remark, 34–37).

(2) The previous point implies not only a quantitative but also a qualitative difference, which is why natural becoming according to Hegel cannot achieve the spiritual elevation of the historical process. This is also why he, with an expression that may not seem very poetic indeed (at least from the point of view of a romantic type of Aesthetics), spoke of a "boredom of nature" (Hegel 1982, 128).

(3) Using terminology more typical of 20th-century philosophy, we could also translate these concepts in another way: the natural subject appears to be unable to narrate itself. Why do we refer to the telling as narration? In the case of Ricoeur's philosophy, the link between time and narrative is decisive, of course; indeed, the narrative also takes on not only relational but also methodological significance for Habermas when he addresses the question of the renewed task of philosophy: "What follows is an attempt to narrate a story" (Habermas 2015, 4). Above all, what is most important is that the positions of both philosophers about Hegel and a critical reading of his thought converge on one point: the story-telling form becomes fundamental for understanding a narrative unity that does

not remain defeated by limitation, negativity, failure, but rather is capable of making itself a stimulus of all this, a conatus, to go towards understanding reality through a dialectic that is never conclusive, but remains – and cannot but remain – open. Habermas states that in this way, philosophy regains its role as the "guardian of rationality" (Habermas 2015, 16 and 19): "As far as philosophy is concerned, it might do well to refurbish its link with the totality by taking on the role of interpreter on behalf of the lifeworld" (Habermas 2015, 18). Even more explicit is Ricoeur, when after "Having left Hegel behind," he says that another way must be sought:

> (…) another way remains, that of an open-ended, incomplete, imperfect mediation, namely, the network of interweaving perspectives of the expectation of the future, the reception of the past, and the experience of the present, with no *Aufhebung* into a totality where reason in history and its reality would coincide (Ricoeur 2014, 207).

Admittedly, this is a remark that Habermas and Ricoeur make about systematic philosophical visions as a whole, and in particular about the entire Hegelian philosophical system; however, this makes it attractive for us to look mainly at the *Naturphilosophie* because if it is true that nature cannot say 'I' about itself, it is equally valid that a sort of dialectic that already for Hegel is inconclusive is taking place precisely there. Now, from the Stuttgart philosopher's point of view, this is the mortal limit of the realm of exteriority, but is it possible that, beyond this, this limit also becomes an opportunity for meaning and understanding?

## VI. Open Dialectics and Philosophical Biology

Let us use the reading criterion we have just presented to compare the meaning of Hegel's Philosophy of Nature with Hans Jonas's "Philosophical Biology." Let us start from the end of the *Naturphilosophie*. If we try to read it with the keys later provided by Jonas, we realize that the characteristics of the entire systematic concept strongly mark it. We know that the inability of the natural individual to adapt entirely to the universality of the genus leads to an *Aufhebung* of decisive importance, which leads to the passage from Nature to Spirit. We have recalled above how the reference to the genus here can be understood in a systematic-classificatory and logical-ontological sense. This corresponds to what Jonas observes about applying a systematic vision to living beings: the first aspect, the classificatory one, leads back to the Linnean system that will be the basis, Jonas argues, of the presence of a genealogical principle introduced into evolutionism.

On the other hand, concerning Hegel, two problems open up here: (1) The first concerns the role of classification, whereby a distinction must be made between systems that have an internal necessity and those that do not (Hegel 2013 § 9 and § 16, 30–31 and 39–41); (2) Furthermore, we know that Hegel clearly expressed his opposition to evolutionism (Hegel 2004, § 249n; as a comment see Harris 1998). One can think of a way

to resolve the limits of the classificatory path by referring indeed to a logical-ontological value of this kind: in this way, as Jonas reminds us, a close link is recognized between the truth of the system and being so that reality does not can only be understood as multiple, but instead as a whole. However, the problem that Jonas points out with this type of solution is guaranteeing the possibility of understanding concerning a life that knows how to open up to novelty (Jonas 2001, 183–187; see also Jonas 2011, 92–101). From this point of view, the question of metabolism is fundamental. We anticipated it. Firstly, because it represents, on a natural level, the realization of that organizational capacity, which is typical of effective systems, and we have seen that as far as Hegel is concerned, this corresponds to a precise organizational capacity of the logical element in making the concept objective. In the eyes of the Stuttgart philosopher, the main fragility of nature regarding the concept is that of externality, which generates a bad infinity in continuing to produce itself.

Nevertheless, thanks to metabolism, externality is brought back to the unity of the living process of the organism. In Jonas's thought, it appears evident how continually measuring oneself with the outside in the form of conversion is the way to reverse the sense of fragility in the strength of the living, and, in doing so, the organism points to a beginning level of freedom and consciousness. However, compared to Hegel's vision, Jonas particularly underlines the role of negativity that opens both to the possibility of its overcoming and to that of failure, whereby the freedom that can already be experienced on a natural level also involves "the burden of need and means precarious being" (Jonas 2001, 4), and "our body exerting itself in action" (Jonas 2001, 33). The strength and superiority of the animal compared to the vegetable show at the same time its fragility and its dependence on otherness, exposing itself to the risk of failure, for example, in getting food, so that "appetite and fear come into play" (Jonas 2001, 102): "It is life itself which brings about this separation: a particular branch of it evolves the capacity and the necessity of relating itself to an environment no longer contiguous with itself and immediately available to its metabolic needs" (Jonas 2001, 102–103). Here the sense of an open dialectic categorically wants to avoid any reference to a "cunning of reason," but instead shows that "that very self-transcendence" of the living body (Jonas 2001, 18) can also occur through paradoxical progress through mischance and accident (Jonas 2001, 51). We, therefore, understand the interest that Jonas, unlike Hegel, shows towards evolutionism, albeit criticizing it for some of its aspects.

That is, we find, through another path and other themes and lemmas, the question of an open dialectic. And it is interesting to see in Jonas a reference to the theme of effort, of *conatus*, which we have already highlighted previously. For Jonas, this means, from the point of view of the living subject, being able to meet the possibility of the opportunity and yet without losing one's identity, which consists not of the impossible task of keeping together all the elements in the lived temporal sequence and make them equivalent to one's identity, but instead in managing to keep one's multiplicity together. Now, it is not

among our objectives to focus on the differences between the English (*The Phenomenon of Life*) and German editions (*Organismus und Freiheit*) of the work dedicated by Jonas to "Philosophical Biology" (on this see the contributions and notes of the Editors in Jonas 2010); nevertheless, we point out that on the specific topic we have just addressed it appears more effective to refer to the German Edition (see Jonas 2011, 100–101). Compared to the proposals of Habermas and Ricoeur that we mentioned before, we should observe that in Jonas's proposal, this open dialectic is placed on a natural level. Therefore, the natural subject still needs to learn how to narrate this dialectic as a story. Nonetheless, as we expected, this may not only be a limitation but also reveal itself as a possibility or at least the beginning of a chance. Jonas is evident in this: the transcendence of the natural as the self-transcendence of the subject starts from nature itself because that is where freedom begins and because this is life "by its nature" (Jonas 2001, 100).

But if this is the case, once we have observed these decisive differences, can we still affirm that Jonas's "Philosophical Biology" is also a proposal of open dialectics, proper for us in a hermeneutic perspective towards Hegel's thought?

## VII. Biological Multiplicity and Responsibility as a Principle

To return to using an interpretation key that we have used several times in this paper, we can say that the transition from the Philosophy of Nature to the Philosophy of Spirit represents not only the completion of the second part but also the opening towards the third and final part of Hegel's system: this observation, evident in itself, allows us to think in the exact terms of the role of the living organism, in the sense that its illness and its death are not only a closure but also a return to an essential opening to which already in 1978 M. Greene, in participating with his contribution to the publication for Jonas's 75th birthday, assigned a metaphysical value: this metaphysical value appears in both Hegel's and Jonas's thoughts regarding nature (Greene 1978). And that Hegel's *Naturphilosophie* returns as a whole to propose a metaphysical question with renewed force has been supported by Stone (Stone 2005).

Now, it must be recognized that this opening – to which, concerning Jonas, it can be discussed whether it is more appropriate to assign the qualification of "ontological" when that of "metaphysics" seemed too traditional – in the philosopher of *The Imperative of Responsibility*, however, is also aimed towards biological multiplicity again, whereby the sense of the individual's limit is also that of an openness to life which is renewed, to the flowering of youth, to a role of otherness which is by no means simple repetition like that of temporal instants in their abstractness, but instead originality and enthusiasm:

> But this perhaps is precisely the wisdom in the harsh dispensation of our mortality: that it grants us the eternally renewed promise of the freshness, immediacy, and eagerness of youth, together with the supply of otherness as such (Jonas 1985, 19).

All this could not happen without recognizing some spiritual value already inherent in the biological and natural element, especially with ethical reference to the meaning of responsibility and the awareness that comes from it: "Perhaps a nonnegotiable limit to our expected time is necessary for each of us as the incentive to number our days and make them count" (Jonas 1985, 19).

First of all, this regards a genuinely natural and biological aspect that concerns the environment in which life will develop in the future; but – as in other cases – here, too, it happens that starting from the natural, we find ourselves faced with a spiritual value, because, through a biological and environmental inheritance, we also hand over to posterity a cultural image that expresses what type of relationship we have had with planet earth and what kind of consideration of life we have had (on this topic see Hösle 1994; Franzini Tibaldeo 2009; Morris 2013). Here, the spiritual manifests itself by the passage through the natural. Thus, the sense of responsibility and sacred respect converge towards something we have received and have the duty to transmit, a human nature that, for Jonas, is the subject of evolution. So yes, we will soon be able to conclude that it is an open dialectic, endowed with an ethical value that passes through the natural, in the form of the gift, a received inheritance which is in turn transmitted as "(…) gratitude, piety, and respect as ingredients of an ethic called upon to stand guard over the future in the technological tempest of the present, and which cannot do so without the past" (Jonas 1985, 33).

## VIII. Conclusion

The essential point to draw some conclusions from our path is to remember the qualitative difference between Nature and Spirit according to Hegel: nature lacks that awareness of self-consciousness that allows an ego and a community to gather the meaning of their path in the form of objective history (see Bonito Oliva 2016) or in the more subjective, but still relational way, of the narration, of the story-telling. It should be remembered that for the Stuttgart philosopher, the difference between Nature and Spirit just mentioned is and remains unbridgeable (see Chiereghin 2000, 43–105; Kervégan 2018). Nonetheless, this must not lead to underestimating the fact that the problem of the subject's freedom begins from the comparison with natural exteriority, precisely because the latter is incapable of assigning itself a spiritual meaning to the extent in which it expresses itself through a becoming which is bad infinite; yet right there begins a first path of emancipation of the Spirit, not against Nature, but through the life that is given first of all in Nature, because – as Christian Spahn wrote – "spirit exists first and foremost essentially [*wesentlich*] as a living spirit" (Spahn 2007, 202–203) and we understand that the adverb "essentially" is a Hegelian lemma which means objectification of the relationship between the universal and the singular. The essence comes to life. This

aspect can be highlighted more or less, just as it can be observed, from the point of view of the interpretation of Hegel's thought, that the writings of *Naturphilosophie* of the Jena period are partly more consonant or at least comparable with a cultural climate that characterized in particular the understanding of nature between the end of the 18th–and the beginning of the 19th–century, a climate to which it may be helpful to refer in any case to better understand the meaning of this part of the system also in the *Encyclopaedia* (Vieweg 1998; Wandschneider 1987; Illetterati 1995b; Battistoni 2024).

On the other hand, it seemed interesting to pose a hermeneutic question with this: comparing aspects of Hegel's Philosophy of Nature with others of Jonas's late 20th-century "Philosophical Biology" achieves a specific productive effect concerning the meaning that those writings can have for us today. This is why we also briefly referred to Habermas and Ricoeur. The hermeneutic theme is, in fact, the one for which it is necessary to ask ourselves whether a need for open dialectics should not also be recognized in *Naturphilosophie*, indeed above all in it, because in that place the transition from mere exteriority to essence occurs when the living subject learns to take charge of contradiction and even to use, as far as possible, negativity for one's own advantage and for one's development: of course, in many ways, this confirms the bad infinity of externality, because, as we have often repeated, the natural subject lacks full awareness of the spiritual subject; yet, through the mediation of the living, contradiction gives natural becoming a chance to open up to the infinity of the possible in which the unfinished, the imperfect and even failure becomes the impulse and motivation for that effort, that *conatus* by the subject to understand even negativity to elevate oneself and to give unity to one's path.

If this hermeneutic hypothesis is reliable, then the Philosophy of Nature becomes an even more essential part of the system of philosophy, both interpretively to understand Hegel and from the point of view of "Dasein" due to that effort that requires the animal organism to be able to face "the keen edge of want" (Jonas 2001, 103), and finally for the ethical reasons that Jonas would remind us again, regarding the responsibility that every human being has towards life.

## References

Achella S. 2019. *Pensare la vita. Saggio su Hegel*. Bologna: il Mulino.

Battistoni G. 2024. "Einsichten für die gegenwärtige Umweltethik: Romantik, Hegel und Jonas", in M. Lewin (Ed.), *Klassische Deutsche Philosophie: Wege in die Zukunft* (pp. 211–228). Boston: Brill/Mentis 2024. http://doi.org/10.30965/9783969753002_012

Bonanni R., Cariati I., Marini M., Tarantino U., & Tancredi V. 2023. "Microgravity and Musculoskeletal Health: What Strategies Should Be Used for a Great Challenge?" *Life* 13(7):1423. https://doi.org/10.3390/life13071423

Bonito Oliva R. 2016. "Io-Soggetto", in L. Illetterati & P. Giuspoli (Eds.), *Filosofia classica tedesca: le parole chiave* (pp. 193–217). Roma: Carocci.

Chiereghin F. 2000. *Tempo e storia. Aristotele, Hegel, Heidegger*. Padova: Il Poligrafo.

Franzini Tibaldeo R. 2009. *La rivoluzione ontologica di Hans Jonas. Uno studio sulla genesi e il significato di 'Organismo e libertà'*. Milano-Udine: Mimesis.

Greene M. 1978. "Life, Disease, and Death: A Metaphysical Viewpoint," in S. F. Spicker (Ed.), *Organism, Medicine, and Metaphysics. Essays in Honor of Hans Jonas on his 75th Birthday May 10, 1978* (pp. 233–263). Dordrecht: D. Reidel. https://doi.org/10.1007/978-94-009-9783-7_14

Habermas J. 2015. *Moral Consciousness and Communicative Action*. Trans. by C. Lenhardt & S. Weber Nicholsen. Introduction by T. MacCarthy. Cambridge – Oxford – Boston – New York: Polity Press [Kindle Edition].

Harris E. E. 1998. "How Final Is Hegel's Rejection of Evolution?" in S. Houlgate (Ed.), *Hegel and the Philosophy of Nature* (pp. 189–208). Albany: State University of New York Press. https://doi.org/10.5840/hsaproceedings19981410

Hegel G. W. F. 1975. *Jenaer Systementwürfe I.* Ed. by K. Düsing & H. Kimmerle. *Gesammelte Werke*, Vol. 6 (pp. 1–265). In Verbindung mit der Deutschen Forschungsgemeinschaft, ed. by der Nordrhein-Westfälischen (from 1968 to 1995: Rheinisch-Westfälischen) Akademie der Wissenschaften. Hamburg: Felix Meiner 1968-.

Hegel G. W. F. 1976a. *Jenaer Systementwürfe III. Naturphilosophie*. Unter Mitarbeit von J. H. Trede, ed. by R.-P. Horstmann, *Gesammelte Werke*, Vol. 8 (pp. 3–184). Hamburg: Felix Meiner.

Hegel G. W. F. 1976b. *Ein Blatt zur Naturphilosophie*. Unter Mitarbeit von J. H. Trede, ed. by R.-P. Horstmann. *Gesammelte Werke*, Vol. 8 (pp. 291–293). Hamburg: Felix Meiner.

Hegel G. W. F. 1982. *Naturphilosophie. Band I. Die Vorlesung von 1819/20*. In Verbindung mit K.-H. Ilting, ed. by M. Gies. Napoli: Bibliopolis.

Hegel G. W. F. 1986. *Vorlesungen über die Geschichte der Philosophie II*. *Werke in zwanzig Bänden*, ed. by E. Moldenhauer & K. M. Michel. Frankfurt am Main: Suhrkamp.

Hegel G. W. F. 1992. *Enzyklopädie der philosophischen Wissenschaften im Grundrisse (1830)*, ed. by W. Bonsiepen & H.-C. Lucas, unter Mitarbeit von U. Rameil. Hegel, *Gesammelte Werke*, Vol. 20. Hamburg: Felix Meiner.

Hegel G. W. F. 2004. *Hegel's Philosophy of Nature. Being Part Two of the Encyclopaedia of the Philosophical Sciences* (1830). Trans. from Nicolin and Pöggeler's Edition (1959) and from the Zusätze in Michelet's Text (1847) by A. V. Miller with foreword by J. N. Findlay, F.B.A. Oxford: Oxford University Press.

Hegel G. W. F. 2013. *Hegel's Logic. Being Part One of the Encyclopaedia of the Philosophical Sciences*. Trans. by W. Wallace. [eBook; without location]: Digireads. com Publishing.

Hösle V. 1988. *Hegels System. Der Idealismus der Subjektivität und das Problem der Intersubjektivität*, Vol. 2: "Philosophie der Natur und des Geistes". Hamburg: Felix Meiner.

Hösle V. 1994. "Ontologie und Ethik bei Hans Jonas", in D. Böhler, in Verbindung mit I. Hoppe (Eds.), *Ethik für die Zukunft. Im Diskurs mit Hans Jonas* (pp. 105–125). München: C.H. Beck.

Illetterati L. 1995a. *Natura e ragione. Sullo sviluppo dell'idea di natura in Hegel*. Trento: Verifiche.

Illetterati L. 1995b. "Vita e organismo nella Filosofia della natura", in F. Biasutti, L. Bignami, F. Chiereghin, P. Giuspoli, L. Illetterati, F. Menegoni, & A. Moretto, *Filosofia e scienze filosofiche nell''Enciclopedia' hegeliana del 1817*, ed. by F. Chiereghin (pp. 337–427). Trento: Verifiche.

Jonas H. 1985. *The Imperative of Responsibility. In Search of an Ethics for the Technological Age*. Trans. by H. Jonas with the Collaboration of D. Herr. Chicago – London: The University of Chicago Press.

Jonas H. 2001. *The Phenomenon of Life. Toward a Philosophical Biology*. With a foreword by L. Vogel. Evanston (IL): Northwestern University Press.

Jonas H. 2010. *Organismus und Freiheit. Ansätze zu einer philosophischen Biologie*, in H. Gronke (Ed.), *Organismus und Freiheit. Philosophie des Lebens und Ethik der Lebenswissenschaften* (pp. 1–359). In D. Böhler, M. Bongardt, H. Burckhart, Ch. Wiese, & W. Ch. Zimmerli (Eds.), *Kritische Gesamtausgabe der Werke von Hans Jonas*, Vol. I/1. Freiburg i. Breisgau – Berlin – Wien: Rombach.

Jonas H. 2011. *Organismus und Freiheit. Ansätze zu einer philosophischen Biologie*. Aus dem Englischen übersetzt vom Verfasser und von K. Dockhorn. Göttingen: Vandenhoeck & Ruprecht [eBook].

Kervégan J.-F. 2018. "Esiste una 'filosofia della storia'?" in S. Achella (Ed.), *Lezioni hegeliane* (pp. 53–74). Pisa: Edizioni della Normale.

Liccioli L. 2008. "Il ruolo della medicina nella *Enciclopedia delle Scienze filosofiche* di Hegel", in G. Erle (Ed.), *La valenza ethica del cosmo*. Padova: Il Poligrafo.

Morris T. 2013. *Hans Jonas's Ethic of Responsibility. From Ontology to Ecology*. Albany: State University of New York Press.

Ricoeur P. 2014. *Time and Narrative*, Vol. 3, trans. by K. Blamey & D. Pellauer. Chicago – London: The University of Chicago Press [eBook].

Spahn C. 2007. *Lebendiger Begriff begriffenes Leben. Zur Grundlegung der Philosophie des Organischen bei G. W. F. Hegel*. Würzburg: Königshausen & Neumann.

Stone A. 2005. *Petrified Intelligence. Nature in Hegel's Philosophy*. Albany: State University of New York Press.

Vieweg K. (Ed.) 1998. *Hegels Jenaer Naturphilosophie*. München: Fink.

Wandschneider D. 1982. *Raum, Zeit, Relativität. Grundbestimmungen der Physik in der Perspektive der Hegelschen Naturphilosophie*. Frankfurt am Main: Vittorio Klostermann.

Wandschneider D. 1987. "Anfänge des Seelischen in der Natur in der Deutung der hegelschen Naturphilosophie und in systemtheoretischer Rekonstruktion", in M. J. Petry (Ed.), *Hegel und die Naturwissenschaften* (pp. 433–466). Stuttgart-Bad Cannstatt: frommann-holzboog.

*Ethics in Progress* (ISSN 2084-9257). Vol. 15 (2024). No. 2,
Art. #7, pp. 105-119. DOI:10.14746/eip.2024.2.7


# *Intelligent Will, Causality, and Action in Hegel's Jenaer Realphilosophie 1805/06*

Yuliia Tereshchenko

(Adam Mickiewicz University, Poznań, Poland; juliia.tereshchenko@amu.edu.pl)
ORCID: 0000-0001-8158-2134

**Abstract:** This paper introduces foundational claims originating from Hegel's *Jenaer Realphilosophie 1805/6* to Hegel's action studies. It focuses on the concept of the minded subject whose intelligent will [*als Wille, der Intelligenz ist*] is essential for approaching the effective agency capable of action [*das Tun; die Tätigkeit*] and labor [*Arbeiten*]. In this work, agency is initially conceptualized in terms of its self-actualization and self-objectification in external achievements. It shows that, unlike in certain neo-Hegelian considerations, the emergence of agency and the ability to act [*Handlung*] freely, deliberately, purposefully, and intentionally is determined by the development of the individual human mind and its explanation does not need the entire complex socio-economic apparatus related to labor [*Arbeit*].

**Keywords:** Hegel; Jenaer Reaphilosophie 1805/06; action; agency; intelligent and practical will; individualism; labor as a socio-economic endeavor; philosophy of mind.

## I. Introduction

In this paper, I defend the following claim: Hegel's conception of intelligent will described in *Jenaer Realphilosophie 1805/6* constitutes a sufficient theoretical foundation for understanding the foundations of his early approach to action. In the light of certain present-day neo-Hegelian interpretations of Hegel's philosophy of action as 'impossible' (whereas communal practice, and in particular ontologically and institutionally mediated labor as a socio-economic endeavor, is considered possible), understanding a subject's individual ability to act freely, purposefully, and deliberately in Hegel's early philosophy (Hegel 1983) deserves re-examination. It is about a subject equipped with an individual mind. The latter develops, among other things, an internal causality and learns – firstly through a kind of intelligence called "cunning" [*die List; das offenste Handeln ist die größte List*] (Hegel 1969, 199) to master and also use nature's causality, external things [*die äußere Dingheit*], tools, and techniques to realize the content of the subjective will in the external – thus objective and material – world. Not yet explicitly named by Hegel in this work, but implicitly already referred to, an elemental intention to act is generated by the mind's cognitive abilities.

Aims, actions – and above all the tools and products – can be shared with fellow subjects; Hegel describes cooperation [*die gemeinschaftliche Arbeit*], exchange, contract, and becoming "general" or "universal" [*die allgemeine Wirklichkeit*; *die allgemeine Möglichkeit*] (Hegel 1969, 203) for a community of embodied, minded subjects who recognize each other. Nevertheless, as a being endowed with a practical mind and intelligent will, each human subject is already individually capable of undertaking action, and thus also of having an impact on the external world. In this individual activity there is, of course, a certain as yet pre-social – or still un(under)socialized – immediacy [*die Unmittelbarkeit*]; but, even under complex societal conditions, an individual is able to act independently and even against the common rules; in this way, moral action is always possible – and the subjective right to it remains inalienable, even if ethical and statutory laws prescribe otherwise. The subjective, individual component is present even in the most objective and socialized products of human action. Hence, it would be more accurate to speak of human-social action (especially labor) rather than of social action. This kind of individualism seems to be related to the "state of nature," but it is noteworthy that in Hegel individualism is also made one of the foundations of modern society. Approaching *labor* in his philosophy presupposes its complex ontology and normativity as a socio-economic endeavor; but to grasp the prerequisites (both subjective and naturally-objective conditions of possibility) for action, it seems unnecessary to recall that entire "multifaceted system" [*vielseitiges System*] (Hegel 1969, 233) of industry, the market, and public institutions.

The main goal of this paper is to argue for the self-sufficiency of individual subjectivity in becoming able to undertake actions – including rules creation, initially in terms of (1) practical-technical rationality and (2) moral normativity. The validity of both the former and the latter remains clearly limited and must be mediated by intersubjective relations and 'ethical life' [*sittliches Leben*; *Sittlichkeit*] as well as the laws of right [*Rechtsgesetze*] of civil society which gradually make up what Hegel called the objective spirit incorporated in the *Rechtsstaat*. The autonomous development of the theoretical and practical faculties of the human mind ensures subjective self-sufficiency. The subjective ability to act and interact freely, deliberately, and intentionally, in turn, constitutes the foundation for the existence of the modern community.

In particular, the paper considers a specific definition of practical will that Hegel provides in his *Jenaer Realphilosophie 1805/6*. Hegel's analysis of thought involves the socio-normative philosophical conception of will that he presents in his later works. However, in the *Jenaer Realphilosophie*, we find the conceptualization of will as a cognitive, volitional and practical faculty of the mind that ensures effective doings and actions not only inside the mind in the form of setting goals and forming intentions, but also in external reality. Many interacting parts make up Hegel's idea of intersubjectively and societally consolidated ontology and logic, but the importance of the role of the individual being, with their initiative and action-taking, is undeniable. For it is certainly

not the case in Hegel that the objectified – especially normatively – 'we'/'us' dominates and predetermines all the relevant activity of the individual, and that this activity has no other worth or sense than that of the extra- and supra-individual. For instance, Pirmin Stekeler-Weithofer stresses a less predeterminative and more cooperative and cultural aspect of action in Hegel's philosophy, including the representations of "intentions and contentions" (Stekeler-Weithofer 2019, 7) (contentions represent the content) to guide actions. In contrast, Michael Quante (2004) exposes the subjective-volitional aspects of action as more primary (see below).

In the following sections, I first outline the neo-Hegelian account of action that focuses on the external societal regulatory aspects of agency and action. Unlike the former, this paper deals with developing the generative and autoregulatory aspects of the human ability to act, claiming that an individual is a source of invention, intention, creation, and transformation of the surrounding world and contributes to societal enterprises and institutions as both an individual, and a socius (interconnected with fellow individuals).

## II. The Neo-Hegelian Account of Hegel's Action

Some contemporary neo-Hegelians, including Robert B. Pippin and Katerina Deligiorgi, claim that the possibility of free action and action evaluation is *generally* determined and conditioned in Hegel by the subject's involvement in 'ethical totality', i.e., a societal network of cooperative practices, norms, and institutions in which actual – and reciprocal – recognition [*wirkliche Anerkennung*] relations are implemented (Pippin 2006; Pippin 2008; Pippin 2010; Deligiorgi 2010) or guaranteed with supra-subjective (e.g., legal) power. In their account, action is undertaken by subjects who do not know for sure what they are going to do and what they have done before other subjects identify (1) their action as an *action*, (2) attribute the performed action to them, and (3) inform the subject in certain way about the content of their intention. In other words, they identify the subjective intention with the intersubjectively and objectively available results or consequences of the action in question, attributing this result to the content of the subjective intention. According to these authors, the subject in Hegel does not have access to any comprehension of the reasons in accordance with which they act, not because of their cognitive dysfunction but because action appears in the social evaluation of something that was done, not at the moment when somebody feels a need or has a wish to do something, nor at the moment when they do something. So, before the social (respectively, intersubjectively and normatively mediated) relation/reaction to action, any purposeful and meaningful activity or action does seem impossible. Theodore R. Schatzki calls it "the indeterminacy of action" – he shows that in Pippin's works Hegel's action "is not fixed, settled, or determined prior to acting, either what a person does or what determines this" (Schatzki 2010). In a nutshell, according to this approach, subjects in Hegel do not know what they are doing until they become an integral part of socialized

consciousness and self-consciousness, also in its practical sense.

This perspective of Hegel's action comprehension entails significant transformations in the way we understand (1) subjectivity and individuality, (2) subjective self-determination and self-sufficiency, (3) agency, and (4) the very sense of Hegel's philosophical project. I will start with the latter since the neo-Hegelian interpretation of Hegel's philosophical aspirations is a crucial prerequisite for the proper apprehension of the claims Pippin and Deligiorgi made about the subjective capacity of thinking and acting.

This paper does not aim to criticize the bright and inspiring interpretation of Hegel's action offered within the neo-Hegelian approach. It does not consider this approach in detail, not least because many scholars have already engaged in a huge discussion about it (Knowles 2010; McDowell 1996; McDowell 2009; McDowell 2010; McDowell 2018; Schatzki 2010; Tereshchenko 2022). Instead, its modest contribution is to draw the attention of those interested in Hegel's action theory to intelligent, practical, and actual will as essential for the human ability to act in the world (not just to constitute one's "I" as during Hegel's Fichtean period in Bern) (see Bondeli 1997).

In the following section, I briefly present John H. McDowell's response to the neo-Hegelian understanding of Hegel's action to show the direction the discussion on Hegel's action took. Then I develop the central thesis of this paper concerning the analysis of the subject's internal reality as a necessary condition for a complete reconstruction of Hegel's ideas.

## III. Pippin's Hegel. McDowell and Reheating the Debate

In Pippin's reading, the main task of Hegel's philosophical project is to formulate and radicalize ideas on phenomena, objects, and relations that do not exist in objective reality or the inner reality of the self. Philosophy reflects changes in thinking about ideas and concepts, and a quest for objective truth does not belong to philosophers' obligations (Pippin 2006, 129). Hegel introduces all the abovementioned concepts (individuality, subjective self-determination, self-sufficiency, and agency) within philosophical discourse in order to emphasize the danger of individualistic thinking. Besides, he tries to defend the idea of the inevitable and total dependence of subjects on the social context in which they find themselves: "by ignoring or denying such original relations in a fantasy of self-reliance that we end up in those distorted or even pathological relations to others, even to ourselves" (Pippin 2006, 127–128).

Pippin describes the nature of the subject's internal reality as entirely *externally* constructed; it contains nothing that can be attributed to the subjective ability to formulate intentions or goals and realize them. The only meaningful human activity is directed toward following the rules of the established social order:

> We are being educated to see that thinking, reasoning, believing, deciding, resolving and so on should not be understood as primarily or essentially mere mental events occurring at a time. They are, but that is the wrong category with which to understand them *as practices*. As practices, activities aimed at getting something right, at finding the right course of action, their intelligibility requires attention to the rules and purpose of this practice, and the subjects of these activities should be understood as purposive rule-followers (Pippin 2006, 135).

Thus, agency is not an auto-creative – and isolated phenomenon – but a product of a collective effort to attribute the status of an agent to a particular subject. Self-determination and self-sufficiency, in turn, are products of the development of the history of ideas, not characteristics of the subject and their ability to act. This conclusion may be right, but it is not the only one we can draw from engaging with Hegel's Jena writings such as the *Jenaer Realphilosophie 1805/6* and the *Jenaer Systementwürfe*, as I will try to demonstrate in the subsequent sections.

As for Pippin's further contributions, the idea that subjects and their actions (in terms of *Handlung*) and deeds (in terms of *Tat*) acquire a certain social status exclusively as a bestowal from others (a "product or result of mutually recognitive attitudes,") leads to the conclusion that any independent individual action and its impact on the world should be regarded as accidental (Pippin 2010, 65). Yes, subjective normativity – e.g., moral normativity – depends on the subject and can be burdened with a certain degree of arbitrariness compared to legal institutions that apply with 'objective' necessity (respectively, validity) and interpersonal commitments. Nonetheless, "the freedom of the will, according to this [subjective, yet not socially mediated – Y.T.] determination, is arbitrariness, in which the following two factors are contained: free reflection, which abstracts from everything, and dependence on an inwardly or externally given content and material" (Hegel 1991, § 15). The limitations of the subjective will come to light in the context of the societal and institutional regulation of human practices (which – however – always include all subjects' self-regulations as a necessary stage of an inclusive civil society). Hegel addresses these regulations already in the final section of the *Jenaer Realphilosophie* 1805/06. It should be added that in the *Jenaer Realphilosophie* not only this system, but also individuals are ruled by the state and law [*die Staatsgewalt*; *die Macht des Rechts*] (Hegel 1969, 234–235). "Here work and doing something" [*hier ist Arbeiten und Etwas-vor-sich-Bringen*] are plugged into the power of the government [*die Kraft der Regierung*] (Hegel 1969, 262). In the later *Philosophy of Right* (after 1817), their labor will firstly be re-privatized and liberalized (however, not without serious repercussions for society), and secondly regulated by the grassroots rise of 'Sittlichkeit' in terms of labor solidarism, cooperativism, and corporativism [*Solidarität, Genossenschaft, Korporation*] (Hegel 1983a, 202) aiming to safeguard workers' rights and justice in a predatory modern capitalist system. But it is not labor [*Arbeit*] – its political and normative empowerment, and its societal value and complexity, but a quite elementary type of human activity – namely action [*Handlung*] – that is of interest in the following article. However, these

bottom-up (ethical) and top-down (legal) regulations do not explain the very subjective foundations and conditions of humans' proactive ability as such.

Furthermore, Pippin's statement that "we cannot determine what actually *was* a subject's intention or motivating reason by relying on some sort of introspection, by somehow looking more deeply *into* the agent's soul, or by some sincerity test" (Pippin 2006, 136) seems to be incompatible with Hegel's account of the nature of human self-consciousness already outlined in the *Jenaer Realphilosophie.*

John H. McDowell is one of the philosophers who started a dialog with Pippin (McDowell 1996; McDowell 2009; McDowell 2010; McDowell 2018). Regarding the core of this dialog, McDowell's line of argumentation is built on critics of Pippin's understanding of (1) the correlation between the freedom of individual beings and society, (2) recognition, and (3) some aspects of the inner reality constitution.

According to McDowell, even though human beings are formed in established social practices, they do not permanently depend on them: "When light has dawned, one is no longer dependent on one's teachers for knowing what to do in the practice they have been initiating one into" (McDowell 2009). Agency is not a result of relations of mutual recognition, although its actualization depends on the latter to a certain extent. Unlike Pippin, McDowell develops the idea of an agent's ability to comprehend his/her intention without outer retrospective attribution. McDowell thus understands free action as containing an autonomously formulated reason, whereas freedom is an opportunity to formulate reasons and "ask for reasons" when it comes to intersubjective interactions (McDowell 2010). The institutions and practices that Hegel describes serve this purpose. They 'teach' human beings how to act efficiently and independently. For McDowell, 'sociality' is not an attributed status, but the ability to use language and articulate reasons.

As I mentioned above, to implement the objectives of this paper, there is no need to cover the existing discussion in detail since this has been thoroughly discussed in the secondary research literature devoted to its analysis (e.g., Smith 2002; Redding 2007; Sanguinetti & Abath 2018). This paper, among other things, aims to advance the debate on Hegel's action comprehension, involving Hegel's early texts and ideas that remain underrepresented in contemporary scholarship focused on action in Hegel. It focuses on the development of individual, intelligent, and practical will that Hegel delivered in his *Jenaer Realphilosophie 1805/6*, and on its relevance for action studies.

## IV. Closer to Activism and Action in Hegel: Moyar and Winfield

Referring to *Phänomenologie des Geistes*, Dean Moyar conceptualizes conscience as "a form of rational authority" that, on the one hand, ensures the subjective ability to identify with undertaken actions, and to take responsibility for them and the beliefs behind them, while, on the other hand, allowing the subject to use "interpretive authority" in their autonomous action. This interpretive authority enables them to understand the

meaning of existing social norms, rules, and laws, while considering the interests and freedom of other people in the act of doing (Moyar 2011).

Another scholar of Hegel's philosophy, Richard Dien Winfield, turning to the *Philosophy of Subjective Spirit*, shows that the subjective will is "practical intelligence" and simultaneously a basis for the formation of the objective "reality of free will" described in the *Philosophy of Right* (Winfield 2013). Winfield's study is important for discussions about Hegel's action, because it emphasizes the character of subjective volition as essentially conscious, and determines the establishment of the will in its objective dimension as nothing else but its concept.

The abovementioned studies famously clarify certain aspects of Hegel's action. At the same time, this paper claims that consideration of the prerequisites for free action should be complemented by the concepts of intelligence and will introduced in the *Jenaer Realphilosophie 1805/06* (Hegel 1983). This addition shows that the constitution and development of the human mind *guarantee* the human being the ability to intend and initiate action freely, and to engage in intersubjective relations (and cooperation) with others.

Intelligence and will are the constitutive abilities of the mind, ensuring its effective development through the cognitive and practical mastery of inner and outer reality. The common distinctive features of these abilities are autonomous development through self-differentiation and self-comprehension through objects emerging in self-differentiation.

## V. Intelligence

Intuition and the power of the imagination are initial stages of intelligence development, within which the Self interacts with the material of "perception as its own" and creates images of independent objects inside itself (Hegel 1983, 86). Through another ability, a name-giving power, the mind gives names to images created in inner self-differentiation. The unity of created image and name, form and content, creates a concept, the foundation of conceptual thinking: "Language, on the other hand, posits the internal as being [*seyendes*]. This, then, is the true being of spirit as that of spirit as such. It is there as the unity of two free Selves [i.e., imagination and language] and [as] an entity [*Daseyn*] that is adequate to its concept. At the same time, it immediately negates itself – fading, yet perceived. Above all, language speaks only with this Self, with the meaning of the thing; it gives it a name and expresses this as the being of the object" (Hegel 1983, 89).

Mind as memory, "the first work of the awakened spirit qua spirit", arranges the "possession of names" under a "fixing and fixed order" (Hegel 1983, 92). Objects ordered by memory lose their connection with the intuition and perception through which they appeared inside the inner reality of the Self. By holding this order, the mind begins the comprehension of itself by recognizing its activity in the mentioned processes.

To Hegel, the mind's authentic ("spiritual") activity is always connected with the

ability to step back from the being given immediately, immediacy as such, and to see its constitutive role in the reality of the internal. At the same time, without undertaking actions, or when beyond the experience of the self-establishing will, the mind remains, in a certain sense, empty.

## VI. Will

The will is the faculty of the mind that ensures the effective mastery of external reality, initially for the satisfaction of natural needs and subsequently for the establishment of intersubjective freedom. Hegel starts the consideration of the will with the concept of drive analysis, claiming that the drive is a "middle term" of a purpose (inherent in the very nature of the will) and the active Self (Hegel 1983, 100). Hegel emphasizes that initially the drive's content belongs to external reality, since the drive exists as formal and empty at the basic stage of the will's self-establishing.

To start its movement, the will turns itself into a force that expels all content from itself. The development of the will begins in self-isolation, the exclusion of otherness, and the experience of a feeling of lack and incompleteness.

At this point, Hegel identifies the I with the drive [*der Trieb*] and says that the will overcomes the feeling of lack through the ability of the I to separate itself from its object. The annihilation of this initial differentiation between the I and object leads to drive satisfaction and the Self finding itself fulfilled. The I becomes conscious of the mechanism of this process since it knows the difference between itself and the object, as well as the fact that the object of the drive appears within its self-differentiation. Finding itself satisfied, "[t]he drive comes to look at itself – it returns to itself in that satisfaction. In the same manner, *it has become knowledge of what it is*" (Hegel 1983, 106). Satisfaction in Hegel's consideration is always connected with the will's mastery of the objects differentiated within the totality of the will, as well as its control over natural laws to manipulate these differentiated objects and thus satisfy the drive:

> Here the drive withdraws entirely from labor. The drive lets nature consume itself, watches quietly and guides it all with only the slightest effort. [This is] cunning. [Consider] the honor of cunning against power – to grasp blind power from one side so that it turns against itself; to comprehend it, to grasp it as something determinate, to be active against it – to make it return into itself as movement, so that it negates itself (Hegel 1983, 104).

In the development of the will through self-positioning and self-differentiation within the I or the drive, the will acquires not only an object for self-satisfaction but also creates an opportunity for stable self-satisfaction. It creates a *tool* as "self-acting." The active I, placing the tool between itself and reality or thinghood, alters the purpose-blind, often mechanical course of the processes of nature in a manner consistent with the intentions and aims of the subject (the intelligent originator and initiator of action) to

finally produce, shape [*bilden*], and achieve something that contributes to the satisfaction of 'the drive'. However, the explanation of the will and its activity in terms of drive is by no means the only one nor the leading one, neither on the basis of the *Jenaer Realphilosophie* nor in contemporary interpretations of Hegel's concept of action (Quante 2004).

## VII. Cognitive and Causative Origins of Activism in Hegel

Let us begin this Section with the fact that in Hegel's view, at the very beginning of the development of consciousness and subjectivity, there is a genuine, initially unconscious activity immediately present in the "I" [*das erste unmittelbare Ich*] which has not yet taken on any articulated and specialised modes, such as for example thinking (reflection). It is probably to this phase that Pippin refers with his argument about the unconscious of the subjective inner life and the primordial drive originating in the intelligent human mind.

In the *Jenaer Realphilosophie 1805/6*, these origins are also non-conscious in Hegel's eyes [*es ist bewußtlos*] (Hegel 1969, 180). But not everything that is initially "bewußtlos", unknowing, unaware, beyond the control of consciousness – and therefore accidental, unguided, beyond the control of the subject – must remain so to the very end. Step by step, as a process, imagination, language, articulated reflection, etc. develop, as consciousness' *specified and various modes and forms*. Incidentally, perhaps the univocal English term 'unconscious' fails to capture the difference between, on the one hand, the complete absence of consciousness as a distinct activity of mind [*die Unwissenheit*; *das Nichtwissen*; *unmittelbares Wissen*] – as in vegetative processes occurring spontaneously in a living organism, plant and animal processes; and, on the other hand, a state in which cognitive activities responsible for being conscious are only in development [*unbewußt*; *das Unbewußtsein*]. In the latter case, there is a potential consciousness (and self-consciousness) and potential knowledge that can develop in the course of personal growth, interpersonally mediated education [*Bildung*], and socialization – thus, in a process that Hegel himself repeatedly described as the progression of and within consciousness (a subject's becoming conscious [*die Selbstbewußtwerdung*]) in its full spectrum, from the initial, dormant state to 'absolute' consciousness in, for example, science and philosophy (such a stepwise description is provided and exemplified by the *Phenomenology of Spirit*).

Thus, across this spectrum of consciousness development there are many forms and degrees, not just a zero-one scheme (either full unconsciousness or full consciousness). Some of the early developmental forms, such as moral consciousness, remain within particular thinking forms [*das endliche Denken*] and beliefs, and the 'truth' of their contents is limited, or contingent [*die Beschränktheit und Zufälligkeit*] (Hegel 1990, 130 and 236). On a rudimentary but nevertheless explicit level, Hegel addresses in the *Jenaer Realphilosophie* the way in which the mind produces representations of things and gives names to things. "This is the first creative power of the mind" [*dies ist die erste Schöpferkraft, die der Geist ausübt*] (Hegel 1969, 183), because the mind will

then apply and operationalise the memorised representations in formulating purposes, ideas and intentions for new actions. As Michael Quante (2004, 57) points out when analysing the subjective will and its ability to act in the context of Hegel's *Philosophy of Right*, representations are an inalienable cognitive aspect of the will as a practical faculty. In contrast, instincts, needs, drives – despite the position they hold in Hegel's *Philosophy of Nature* and speculative philosophy as well – do not work with representations, and thus cannot be guided and structured as *vehiculi* of conscious, intentional, free and ultimately intentional action. "While a need 'mechanically' (…) provokes the activity of an animal, the subjective will decides to posit a content as its end. His freedom for himself is manifested therein" (Quante 2004, 58). In fact, all the preliminaries of the subjective will – not in its moral, but in the primarily practical-technical dimension of the ability to act in general – are legible (not just anticipated!) in the *Jenaer Realphilosophie*. Intelligence here "is actual" [*sie ist wirklich*], which for Hegel means the "possibility to act" [*Möglichkeit des Wirkens*]. "This intelligence is free" [*diese Intelligenz ist frei*] through "the creation of content" [*durch Erzeugung des Inhalts*] – namely "one in which the intelligence will be conscious of her own action, i.e., of herself as making the content or making herself the content" [*und zwar eines solchen, worin sie das Bewußtsein ihres Tuns hat, d.h. ihrer als des Setzens des Inhalt[s] oder [des] Sich-zum-I n h a l t e-machens*] (Hegel 1969, 193–194). This is how practical intelligence or intelligent will work; the will is willing only when it previously determined what to will.

Also, ethical consciousness [*sittlich*] goes beyond the subjective circle of the beliefs, interests, rightness claimed by the subject, because it is oriented towards fellow human beings and mediated by reciprocal relations with them. But this mediation does not mean that moral subjective consciousness has completely disappeared; that the subject has lost the right to morality; or that subjective and ethical consciousness are strictly isolated 'chambers' in the mind. After all, the human mind constitutes *one* realm and one circuit. Nevertheless, the individual human consciousness may, until the end of its unfolding (except perhaps for absolute consciousness, which is science or philosophy), fail to know something [*ungewußt*] or stay skeptical [*skeptisch*], hence the need for these higher, objective and absolute, instances from which the individual can draw [*einen objektiven Inhalt*].

It is necessary to add that during the performance of any action with the active participation of consciousness, as Hegel emphasises, the functioning of consciousness engaged in this action [*Tun*] is itself invisible (unconscious) for the subject. What the conscious mind needs to 'view' or 'track' [*anschauen*], are the objective results of actions – *forms, shapes, qualities* [*als Form gesetzt*] and other products, processed by thinking (including thoughts, ideas, concepts of purpose, etc.), as well as the results manufactured [*verarbeitet*; *Fabrikation; Manufaktur-Arbeiten*] (Hegel 1969, 232) through actions executed in the external world (considered to be work) by using the causality of nature (tools, materials, physical laws, etc.). Here Hegel means the unity of the subjective-and-

objective components of activism, be it *for* an individual conscious mind or in the external worldly horizon. There is an indissoluble – but not transparent – *continuity* between the subjectively-real inside and the objectively-real outside. In addition, according to another of Hegel's works from the Jena period, "the immediate movement of activity can never be aware or self-aware" [*unmittelbare Bewegung des Thuns, das nicht ins Wissen aufgenommen ist*]; "but the I is working" [*es ist aber arbeitend*] (Hegel 1976, 224). Once disconnected (or *analytically* regarded as disconnected), the subjective source generating intelligent, purposeful, and productive human actions and their *objectivations* (products) appear "abstract" – because one-sided, when disconnected one from another, according to Hegel in his Jena writings. One can assume that the *Jenaer Realphilosophie* is the most distant from dualism from among Hegel's works, and Hegel appears here as a realist monist.

The above-mentioned disconnection may generate "the problem of inner-outer" as that of discontinuity and abstractedness (e.g., Pippin 2010), and also, as Quante points out, a body-mind problem especially, because causality – according to Hegel in his *Science of Logic* – cannot be applied "to *relations of physico-organic* and *spiritual life*" (after Quante 2004, 179). Confronted with this issue, what does Hegel apply in these dualistic circumstances? Due to this controversy some scholars have ruled out the possibility of intentionality and action in Hegel at all, yet Hegel is clearly not a philosopher of passive and unproductive human existence. Alternatively, other scholars tended to replace the causal argument by "a logical-connection argument" (Quante 2004, 180), "embodied spirit argument" (Hoffman 1982, 184), etc. From the perspective of Hegel's naturalistic anthropology,

> mental experience allows one to bring together its disparate elements; it for their 'synthesis' in the unity of representation or appetition. Beginning with the lowest stages of our mental life – indeed even the very 'urge' (*Trieb*) of a plant or with the 'feeling' of the animal – we can witness such 'inwardization' of nature. It is in this way living being gains a grip upon its environment. The ability to gain a grip is essential to the notion of life, which is the illustration of logical category of Being-for-self (Hoffman 1982, 190).

From the perspective of the *Phenomenology of Mind*,

> When, for example, Hegel analyzes the concept of 'intention' while discussing the 'sciences' of physiognomy and phrenology in the *Phenomenology of Mind*, the main argument he employs is clearly applicable to the traditional view of volitions. The argument anticipates much of what can be found in contemporary philosophy of mind. Since we cannot identify and describe intention independently of the action which manifests it, intention cannot be construed as a distinct mental event occurring independently of the action. Intention is in the action; both the occurrence and the meaning of the intention are to be found only in the performance of the agent (Hoffman 1982, 193).

The non-causal nature of the synthesis of subjective actions and objective deeds is also presented in the *Jenaer Realphilosophie*, where the juxtaposition – and boundary – between the 'inward' and the 'outward' (due to the externalization of the 'subjective' in

the 'objective') does not exist: *das wirksame Subjekt bewirkt die Gegenständlichkeit und diese wird zur einheitlichen, subjektiv-objektiven Wirklichkeit* (only the original terms can capture the connection between the subject's active action on objectivity and the new, synthetic, subjective-objective identity of reality). The hypothesis of merging teleologies was discussed by Tereshchenko (2022). For Quante,

> The solution I am suggesting – of making Hegel's theory of action compatible with the project of causal explanation – succeeds if one attributes a Davidsonian position to him: There is a token-identity, but no nomological correlations between the various languages of description. This fits Hegel's procedure with regard to the mind-body problem, and can also be reconciled with most of the statements of the *Science of Logic*. For *qua* monism, Hegel's logic holds that all entities are in the onto-theological sense reducible to the Absolute (Quante 2004, 183–184).

However, Quante suggested some modifications to naturalize Hegel's position, including, e.g., "organic purposive activity to be itself a causal power" (Quante 2004, 184) in the world where similar natural causality works. This seems much more acceptable for Hegel than making the human body a tool of machinic, 'dull/mindless work' [*stumpfes Arbeiten*] (Hegel 1969, 232).

## VIII. The Autonomously Self-Developed, Individual Mind as the Prerequisite for Free Action

The mind develops itself beyond the influence of external forces, though it needs a favorable learning environment to develop its faculties properly [*Bildung*]. Through intelligence and will as human cognitive power and the ability to act, the human being holds control over inner and outer reality. The subject acquires knowledge of the objective world and comprehends the nature of this acquisition: "to fill itself – not through passive absorption, but through the creation of a content wherein the intelligence has the consciousness of its own activity, i.e., as its own positing of content or making itself its own content" (Hegel 1983, 99). At the same time, autonomous will, driven by inner purposefulness, forces humans to act, to take "rational control of natural laws in their external existence" (Hegel 1983, 104). To Hegel, the subject moves from a consumer attitude to reality to a constructive one when elementary labor, driven by basic needs, appears.

The further development of a subject as a genuinely moral and ethical being implies the *reciprocally recognized* existence of the Other, and the unity of these faculties of the mind, intelligence and will, ensures a foundation for the effective action towards (and interaction with) the Other. Certain advanced social doings, for instance, do not exist or could not exist without their articulation in language, not to mention cases in which the action appears in the act of speaking (oath of office, verbal commitment) in terms of Austin's pragmatism, although its consequences are real outside the act of speech: "Certainly

linguistic intelligence is necessary for any acting upon rational principle, since without language and thought, volition could not pursue an end requiring conceptualization. If volition constitutively entailed acting upon the conception of some good or principle of volition, will would be unique to thinking, speaking individuals" (Winfield 2013, 203).

I have to emphasize that action in Hegel's thought is not presented as a single concept, so it cannot be understood beyond a systematic reading or, at least, in connection with other "related" concepts. As presented here, intelligence and will should transform the way we think about the prerequisites of the subjective ability to act. The reconstruction of the theory of action should be based not on the characteristics, intentions, and actions people attribute to each other in social interactions, but on the objective ontological capacities of the human being. Changes in the subject's social status, connected with social interactions, should be seen as a consequence of social interaction, not as the essence of action.

## IX. Conclusion

In this paper, I have argued that identifying and explaining the foundations of the human ability to act, as well as practical invention, intention and agency – is possible in Hegel with the focus on an individual, minded and willed subject, before action differentiates into more specific, socially mediated, and institutionalized forms (e.g., as labor, which is a societal and systemic social endeavor). I have tried to show this with the example of the *Jenaer Realphilosophie 1805/06*, where the inward subject's causality is seamlessly intertwined with outward causality, and the resulting ontology has a unitary subject-object nature (it is one reality, in which the effectively acting subject realises itself). I have shown that the transformation of the way we think about the subjective ability to act could change our capacity to understand in a distinctive way the foundations of the concept of action in a more individualistic way than is done by some contemporary interpretations that make all human action dependent on collective mediations and regulations. Rather than questioning the importance of these mediations and regulations, I assumed that they were not necessary to explain how the human practical self in Hegel mobilises, actualises and manifests (as well as objectifies in deeds) its genuinely inward ability to act in terms of intelligent will.

## References

Bondeli M. 1997. *Der Kantianismus des jungen Hegel.* Hamburg: Felix Meiner.

Deligiorgi K. 2010. "Doing without Agency: Hegel's Social Theory of Action," in A. Laitinen & C. Sandis (Eds.), *Hegel on Action* (pp. 97–118). Basingstoke: Palgrave MacMillan.

Hegel G. W. F. 1969. *Jenaer Realphilosophie: Vorlesungsmanuskripte zur Philosophie der Natur und des Geistes von 1805-1806*, ed. by J. Hoffmeister. Hamburg: Felix Meiner.

Hegel G. W. F. 1976. *Jenaer Systementwürfe* (*1805/1806*), Vol. III. *Gesammelte Werke*, Bd. 8. Unter Mitarbeit von J. H. Trede, ed. by R.-P. Horstmann. Hamburg: Felix Meiner.

Hegel G. W. F. 1983. *Hegel and the Human Spirit: A Translation of the Jena Lectures on the Philosophy of Spirit (1805–6)*, ed. by L. Rauch, with Commentary. Detroit: Wayne State University Press.

Hegel G. W. F. 1983a. *Philosophie des Rechts. Die Vorlesung von 1819/20 in einer Nachschrift,* ed. by D. Henrich. Frankfurt am Main: Suhrkamp.

Hegel G. W. F. 1991. *Elements of the Philosophy of Right*, ed. by A. Wood, trans. by H. B. Nisbet. Cambridge: Cambridge University Press.

Hoffman P. 1982. "The Sensible and the Supersensible in Hegel's Theory of Human Action," *Revue Internationale De Philosophie* 139/140:183–194.

Knowles D. 2010. "Hegel on Actions, Reasons, and Causes," in A. Laitinen & C. Sandis (Eds.), *Hegel on Action* (pp. 42–58). Basingstoke: Palgrave MacMillan.

McDowell J. 1996. *Mind and World: With a New Introduction by the Author*. Cambridge, London: Harvard University Press.

McDowell J. 2009. *Having the World in View: Essays on Kant, Hegel, and Sellars*. Cambridge, London: Harvard University Press. https://doi.org/10.2307/j.ctv1nzfgm8

McDowell J. 2010. "Towards a Reading of Hegel on Action in the 'Reason'," in A. Laitinen & C. Sandis (Eds.), *Hegel on Action* (pp. 79–96). Basingstoke: Palgrave MacMillan.

McDowell J. 2018. "What Is the *Phenomenology* About?" in F. Sanguinetti & A. J. Abath (Eds.), *McDowell and Hegel. Perceptual Experience, Thought and Action* (pp. 29–40). Cham: Springer International Publishing. https://doi.org/10.1007/978-3-319-98896-2_2

Moyar D. 2011. *Hegel's Conscience*. Oxford: Oxford University Press.

Pippin R. 1989. *Hegel's Idealism: The Satisfactions of Self-Consciousness.* Cambridge: Cambridge University Press.

Pippin R. 2018. "Reason in Action. A Response to McDowell on Hegel," in F. Sanguinetti & A. J. Abath (Eds.), *McDowell and Hegel. Perceptual Experience, Thought and Action* (pp. 211–227). Cham: Springer International Publishing. https://doi.org/10.1007/978-3-319-98896-2_12

Pippin R. B. 2000. "The Realization of Freedom: Hegel's Practical Philosophy," in K. Ameriks (Ed.), *The Cambridge Companion to German Idealism* (pp. 180–199). Cambridge: Cambridge University Press.

Pippin R. B. 2006. "Recognition and Reconciliation: Actualized Agency in Hegel's Jena Phenomenology," in K. Deligiorgi (Ed.), *Hegel: New Directions* (pp. 125–142). Stockfield, UK: Acumen Publishing. https://doi.org/10.1017/CBO9780511498732.003

Pippin R. B. 2008. *Hegel's Practical Philosophy: Rational Agency as Ethical Life.* Cambridge: Cambridge University Press.

Pippin R. B. 2010. "Hegel's Social Theory of Agency: The 'Inner-Outer Problem," in A. Laitinen & C. Sandis (Eds.), *Hegel on Action* (pp. 59–78). Basingstoke: Palgrave MacMillan.

Quante M. 2004. *Hegel's Concept of Action*, trans. by D. Moyar. Cambridge: Cambridge University Press.

Redding P. 2007. *Analytic Philosophy and the Return of Hegelian Thought*. Cambridge: Cambridge University Press.

Sanguinetti F. & Abath A. J. (Eds.). 2018. *McDowell and Hegel. Perceptual Experience, Thought and Action*. Springer International Publishing. https://doi.org/10.1007/978-3-319-98896-2

Schatzki T. R. 2010. "Pippin's Hegel on Action," *Inquiry* 53(5):490–505. https://doi.org/10.1080/0020174X.2010.516679

Smith N. H. (Ed.). 2002. *Reading McDowell: On Mind and World***.** London – New York: Routledge.

Steckeler-Weithofer P. 2019. "A Hegelian Logic of 'Us': Implicit Forms and Explicit Representations of Actions and Practices," *Hegel-Bulletin* 40(3):1–24. https://doi.org/10.1017/hgl.2019.6

Tereshchenko Y. 2022. "Hegel's Concept of Action between Deflationary Approaches and The Science of Logic," *Ethics in Progress* 13(1):107–123. https://doi.org/10.14746/eip.2022.1.8

Winfield R. 2013. "The Psychology of Will and the Deduction of Right: Rethinking Hegel's Theory of Practical Intelligence," in D. Stern (Ed.), *Essays on Hegel's Philosophy of Subjective Spirit* (pp. 201–221). Albany: State University of New York Press. https://doi.org/10.1515/9781438444468-014

*Ethics in Progress* (ISSN 2084-9257). Vol. 15 (2024). No. 2,
Art. #8, pp. 120-136. DOI:10.14746/eip.2024.2.8


# *Towards (Unilateral) Recognition of "the Technological Other" – Vulnerability, Resistance and Adequate Regard*

Natalia Juchniewicz

(University of Warsaw, Warsaw, Poland; n.juchniewicz@uw.edu.pl)
ORCID: 0000-0002-2686-9404

**Abstract:** The aim of the article is to answer the question of whether the theory of recognition can be applied to research on the human-technology relationship and, if so, to what extent. The article assumes that the theory of recognition is a normative theory, and therefore, its moral consequences can certainly be applied to human persons. To use this theory for studying the relationship between humans and technology, shifts in the theory are necessary. These shifts have been reduced to the concept of solidarity with technological artifacts (especially with robots). However, the article constructs an argument that the concepts of vulnerability and resistance may be helpful in justifying the development of recognition in the relationship between humans and technology. The model of recognition discussed in this case is not, however, a model based on mutual relations but rather on unilateral recognition, which is introduced into the theory through the concept of adequate regard.

**Keywords:** Recognition Theory; technological Other; vulnerability; resistance; adequate regard; Hegel.

## I. Introduction

One of the key concepts introduced and developed by G. W. F. Hegel to modern philosophy is recognition. It assumes that the self-development of the subject depends on the two crucial moments – one, establishing a difference between object and subject, and the second, that being a subject must be recognized by the other subject. Recognition [*Anerkennung*] means "to be respected," but even more literally, "to be differentiated" and accepted in this difference. Even if usually connected with master and servant dialectics (Hegel 1977), recognition is not a one, particular moment in the Hegelian system and should be rather understood as a process with different dimensions of recognition (Honneth 1995). The theory of recognition becomes very important for social and political philosophy because, being combined with the "struggle," it empowers different social groups with the emancipatory discourse (Butler 2021a). However, it also influenced the discussion about technology, especially through the fact that master-servant dialectics (translated also as master-slave dialectics) might describe the relation between people

and technologies such as machines, automates, robots or AI (Bryson 2010; Coeckelbergh 2015; Sabl 2001).

In this article, I aim to examine the concept of recognition from a normative perspective (Kloc-Konkołowicz 2015) applying it to research on the human-technology relationship. As it is usually understood, Hegelian recognition can be applied to humans, because only they can have self-consciousness and, in effect, we can expect reciprocity from such beings. However, among the interpreters of this concept, there is no agreement on whether the Other who is being recognized must have consciousness because it might be sufficient to *assume* that they have it (Gertz 2018). Moreover, it is not clear whether the consciousness matters so much, because the expression of normative demands might be enough to be treated as a recognized being (Honneth 1995). This confusion with so well-known concept of recognition turns the attention to the possibility to recognize non-human beings as possibly being respected and differentiated. The recognition of the Other and from the Other is a necessary step towards self-understanding and self-development of the subject. However, when the concept of recognition is applied to the philosophy of technology it is clear, that we begin to speak about "the technological Other." This otherness is non-human, but this non-humanity is not less normatively-oriented than relations between humans are (Floridi et al. 2018; Floridi & Sanders 2004; Verbeek 2011). However, the question that needs to be posed is: can the theory of recognition be applied to research on human-technology relationships, given that classical recognition forms the basis for building social bonds between human persons?

The key purpose of this article is to present how the theory of recognition is possible in the subject-technological Other relation, and more precisely, I will explain how it is possible that people perceive technology as the Other. My argument is based on the concepts of *vulnerability* and *resistance*, which, when combined with human aversion to witnessing the suffering of other living beings (Rousseau 2002), allow us to assert that normative expectations towards non-human beings arise because they themselves evoke in humans a sense of *unilateral recognition*. My argumentation expands on Nolen Gertz's proposal regarding the construction of recognition relations based on building solidarity with robots (Gertz 2018). However, I specifically focus on vulnerability and resistance rather than solely on solidarity. My approach has significant practical consequences since seemingly incomprehensible behaviours of people attributing internal life to technologies do not necessarily have to be perceived as magical thinking (Musiał 2016) but rather as an extension of human care to other entities with the awareness that they do not possess the same kind of life as human life. However, the fact that the "Other" does not necessarily have to be a human to evoke moral obligations in people represents an important shift in thinking about the theory of recognition. As I will demonstrate in the article, *adequate regard* model of recognition (A is recognized by B, but A is not aware of this recognition) (Laitinen 2010; Laitinen 2011; Waelen 2022) also has moral consequences and can be extended to the "technological Other."

In the first part, I will reconstruct the main assumptions of Axel Honneth's theory of recognition, as his theory, in the broadest sense, is applied to the philosophy of technology (Waelen 2022; Waelen & Wieczorek 2022). Primarily in this section, I draw attention to the fact that Honneth's theory is much more oriented towards perceiving intersubjectivity as a relationship between humans, which also means that Honneth conceives the theory of recognition as a normative theory, not simply as a theory of epistemic recognition of humans (Butler 2021b) and other forms of being. This is crucial because Honneth's theory cannot be transferred in its entirety to the philosophy of technology without certain extensions and supplements. The need for a certain "adaptation" to the requirements of the philosophy of technology becomes evident in the second part of my article.

In the second part, I demonstrate how the concept of solidarity, drawn from Honneth's theory, has been utilized by Nolen Gertz to interpret the relationship of soldiers with EOD (Explosive Ordnance Disposal) robots, particularly in situations where a human risks their life to save a robot due to a sense of connection. Gertz emphasises the concept of solidarity because, in Honneth's theory of recognition, it is linked to respect for social roles, professions, and human labour, allowing for the exploration of functional equivalence between humans and robots. As I argue in the article, Gertz makes important observations and interesting theoretical shifts, but in my view, the key argument should not be built on solidarity but on a more fundamental sense of recognition expressed by vulnerability and resistance of "technological Other."

In the third part, I explore how the concepts of vulnerability and resistance help understand the relations between humans and non-human beings and how these arguments can be applied to the theory of recognition. I demonstrate that recognition does not have to be mutual to have a normative character (Laitinen 2010), and examples of contemporary technologies, such as artificial intelligence, raise the problem of unilateral recognition (the vector of this relationship may be directed towards humans or towards technology, however, it is never mutual in both directions simultaneously).

In the conclusions, I summarize the key findings of the article and suggest possible paths for further exploration of the issues examined.

## II. The Theory of Recognition

The theory of recognition, first formulated within the tradition of German idealism by J. G. Fichte and further developed by G. W. F. Hegel, constitutes a significant conceptual field for modern social and political philosophy. Particularly through the connection of classical German philosophy with psychology and psychoanalysis by Axel Honneth, and subsequently the expansion of this theory to issues of identity and politics by Charles Taylor (Taylor 1994), as well as issues of gender, race, and language by Judith Butler (Butler 1999; Butler 2021a), the theory of recognition appears, on the one hand, quite developed and well-elaborated, and on the other hand, it remains relevant as various

forms of "struggles for recognition" continue to take place in different societies and states.

A key aspect of the theory of recognition is that it defines the conditions under which the formation of the subject occurs, both individual and collective. The fundamental assumption of the theory of recognition is that no one becomes a subject in the movement of self-development without the presence of other people. On the contrary, from the very beginning of its existence, an individual must be recognized as a member of the human community, and subsequently as a subject with specific needs and rights guaranteed by others. The theory of recognition, therefore, posits that while the subject shapes itself in the process of development, these developmental trajectories are determined by intersubjective relations.

The theory of recognition is, therefore, thoroughly humanistic, even anthropocentric. At its core is the subject, which, in relation to other subjects, shapes its understanding of itself and of other subjects. This process leads to the development of specific conditions for mutual respect, the guarantee of equal rights, and the building of solidarity in relationships. In the theory of recognition, most comprehensively developed by Honneth, three forms of recognition can be distinguished: love, law, and solidarity. In the realm of love, which establishes belonging to the family, the subject shapes self-confidence strengthened by care practices expressed by other family members. Love allows the construction of a sense of self at the most fundamental level, as it is based on satisfying the needs of another person, assuming that these needs are justified and even necessary. In legal relationships, the subject is perceived through cognitive respect, signifying that individuals possess rights equal to other people but are also seen as subjects capable of taking responsibility for their actions. The fact that, in legal relationships, the subject is considered in their autonomy of thought and action leads to the development of self-respect. Finally, in relationships based on solidarity or showing respect for others, social esteem is emphasized as the subject gains recognition in social relationships based on their unique abilities or contributions to the community. Additionally, the subject acquires the ability to reflect on the positions of other people in society, leading to the building of bonds of solidarity with others when we show respect for people's work, profession, or social activity.

Honneth's key argument is that recognition holds normative significance because, on the one hand, it points to the presence of customs, social practices, and values in the process of shaping the subject. However, on the other hand, reciprocally, it constructs and sustains a normative relationship between subjects by acknowledging themselves as entities with specific needs and rights.

> (…) Hegel merely wants to say that every philosophical theory of society must proceed not from the acts of isolated subjects but rather from the framework of ethical bonds, within which subjects always already move. Thus, contrary to atomistic theories of society, one is to assume, as a kind of natural basis for human socialization, a situation in which elementary forms of intersubjective coexistence are always present. In so doing, Hegel is quite clearly taking his lead from the Aristotelian notion that there is, inherent in human nature, a

> substratum of links to community, links that fully unfold only in the context of the polis (Honneth 1995, 14).

Honneth derives this conclusion from Hegel's theory, more precisely from *Jenaer Realphilosophie* (Hegel 1983), the period in which the German idealist laid the foundations of his system but eventually resigned from this project in his later work, such as the *Phenomenology of Spirit* and other writings (see Honneth 1995; Habermas 1974). Honneth emphasizes that for Hegel, social bonds are implicitly established, following the model of the Aristotelian *zoon politikon*, as otherwise social relations would not be possible. However, social relations are not initially based on social or political equality but rather on existential equality – this is best expressed by the construction of the struggle for recognition as a situation in which subjects confirm their right to a particular property while acknowledging that the other subject asserts their other claims too. This leads to a struggle for life and death, but simultaneously, this situation highlights that there is an existential bond connecting the subjects.

> For Hegel's statements can also be understood as asserting that it is only with the anticipation of the finitude of the other that subjects become conscious of the existential common ground on the basis of which they learn to view each other reciprocally as vulnerable and threatened beings. (…) through the reciprocal perception of their mortality, the subjects in the struggle discover that they have already recognized each other insofar as their fundamental rights are concerned and have thereby already implicitly created the social basis for an intersubjectively binding legal relationship (Honneth 1995, 49).

The very act of initiating the struggle is thus a confirmation that we recognize the other subject as having certain rights, for we would not be in conflict with them if, at a fundamental level, they were not acknowledged by us as equal to us in some respect. This leads Honneth to emphasize that the struggle for recognition from *Jenaer Realphilosophie* has a completely different resonance than the later one from the *Phenomenology of Spirit*, where the consequence of the struggle is a master-servant dialectic. In *Jenaer Realphilosophie*, the struggle is linked to the concept of ethical life, with the conditions of social integration determined by culture and mutual respect among members of a community attributing themselves specific rights (Honneth 1995, 58–59). In the *Phenomenology of Spirit*, however, the struggle for recognition is reduced to the moment of the formation of self-consciousness, where the normative dimension of building social relations takes a back seat, yielding to the practice of labour and the self-shaping of the subject in the internal movement of self-development (Honneth 1995, 62–63).

Emphasising the normative dimension of recognition, Honneth not only identified the affirmative character of this intersubjective relationship (affirmation of one's subjectivity, freedom, autonomy, and mutual respect among individuals) but also highlighted the significant role of misrecognition in shaping the individual and social relations. This involves situations where the physical and psychological integrity of individuals is violated, instances of physical and institutional violence, lack of legal representation and

legal security, or a sense of social isolation. In other words, if recognition has a significant impact on self-confidence, self-respect, and the sense of human uniqueness, the absence of recognition has a colossal influence on fundamental aspects of being human and functioning in human communities.

It is precisely this negative aspect of the theory of recognition, namely misrecognition, that is the subject of research in the field of the philosophy of technology. Modern technologies, especially artificial intelligence (AI), may rely on and perpetuate various forms of social misrecognition. Artificial intelligence can erroneously categorize and misidentify people, leading to errors in technology usage and broader forms of exclusion, and even repression of individuals incorrectly assigned to specific social groups or, in some cases, to a class not of human subjects but non-human entities (Waelen 2022). Furthermore, various technologies may manipulate people in a way that, while suggesting the satisfaction of human needs, *de facto* limits the scope of human interaction with other people (Brinck & Balkenius 2020). The above examples of applying Honneth's theory suggest, however, that the problem in the human-technology relations in the context of recognition lies in an epistemic error, either in the technology's incorrect recognition of the subject's qualities or in the human's mistaken interpretation of the technology's function. Honneth himself would not agree with the argument that recognition in the sense of "recognizing" [*erkennen*] is equivalent to normative recognition [*anerkennen*] (Honneth 2021, 23). Therefore, to use his theory for research on the human-technology relations, certain categorical shifts and extensions of his theory with additional elements are necessary.

Moreover, the conceptual strength of the struggle for recognition and its connection with the more widely known *Phenomenology of Spirit*, beyond *Jenaer Realphilosophie*, however, leads to the research on technology associating it with the later dialectics of mastery and servitude, and, somewhat contrary to Honneth's own intentions, with his theory of recognition. This unwarranted, yet intriguing, merger yields practical effects, revealing the conceptual framework that accompanies discussions on the theory of recognition in the philosophy of technology, which I will examine in the second part of the article.

## III. Solidarity with Robots or… ATM

Nolen Gertz in his article "Hegel, the Struggle for Recognition, and Robots" raises the problem of the significance of the Hegelian theory of recognition for the analysis of human-technology relations – "what it means to recognize that humans engage with technologies in such a dialectical relationship" (Gertz 2018, 139). His main thesis is that this engagement with technologies is based on the experience of solidarity (Honneth 1995) because of the functional equivalence of social roles which we delegate to technologies and through which we understand ourselves. The fact that we can see ourselves in technology

arises from two assumptions – the first relates to an epistemological assumption that technologies mediate our ethical and political lives (Gertz 2018, 140), the second is connected to ontological assumptions based on relationism, which assumes that humans enter into a relationship with technology, and understanding of both what is human and what is technological is shaped through this relationship (Ihde 1990). Therefore, Gertz extends Hegel's theory of recognition to the postphenomenology of technology and as a result, he also expands Honneth's theory itself with new interpretations of its key terms.

However, to include technology in the dialectics of recognition Gertz has to make "a seemingly illicit move" – he has to focus rather on that how in the Hegelian process of recognition the first moment of confrontation between self-consciousnesses looks like. The emphasis here is on the fact that the Other has to "appear to be a consciousness" and not necessarily "to be a consciousness" (Gertz 2018, 142). This move is justified if we look at the struggle for recognition as a method to confirm subjectivity as subjectivity. This movement is also possible if we go beyond the *Jeaner Realphilosophie* and delve into the *Phenomenology of Spirit*, where the struggle for recognition constitutes a significant moment in the development of self-consciousness. In this moment, self-consciousness does not know itself and has to confirm who it is. To do this it needs another self-consciousness, but first of all, it has to recognize this Other as a self-consciousness. The moment of recognition answers rather the problem of "who we are" than "who the other is" (Gertz 2018, 155), so it is based on the projection of own desires and needs of a self-consciousness onto the Other. The abovementioned "illicit move" can be accepted as a starting point for the process of recognition but seems to be difficult to be kept in the revealing of this process. One of the key aspects of recognition is a struggle to the death, so the horizon of mortality is an important factor in discovering self-consciousness. Gertz, however, makes a transition from the problem of mortality to the problem of morality. To do this he turns to Axel Honneth and the quotation:

> The reference to the existential dimension of death seems to be completely unnecessary. For it is the mere fact of the morally decisive resistance to its interaction partner that makes the attacking subject aware that the other had come to the situation harbouring normative expectations in just the way that it had itself vis-á-vis the other. That alone, and not how the other asserts its rights, is what allows subjects to perceive each other as morally vulnerable persons and, thereby, to mutually affirm each other in their fundamental claims to integrity (Honneth 1995, 48–49).

The above quotation explains that "morally decisive resistance" is enough to be perceived as a "morally vulnerable person" demanding recognition. Gertz highlights here that some technologies might have moral vulnerability as it has been proved in the postphenomenologically oriented philosophy of technology (Ihde 1990; Verbeek 2011), but also examined by ethicists (Singer 2010). The most suggesting example here is EOD (explosives ordnance detonation) robots with whom American soldiers built a very strong bond during the war in Iraq. They treated these robots as "buddies," partners, or

members of a team, and this strong relationship between human and non-human actors has raised the problem of recognition again. Are robots recognized as equal to humans if they are rescued by soldiers in war? Should they be treated equally as humans having the same privileges?[1] How is it possible that a human being could risk a life for a machine?

Gertz answers these questions through the concept of solidarity introduced by Honneth and the alterity-relation in the postphenomenology of technology. Solidarity with robots is possible when people see that robots replace their functional role in society and because of that human beings can see this equivalence between themselves and a machine. "Solidarity then is the basis for the political demand that members of the military – whether human or robotic – be treated not as worthy of replacement, but as worthy of respect" (Gertz 2018, 151). As it is explained by Gertz, the recognition of the Other speaks more about us, and not about the Other – seeing equivalencies between a human being and a robot it is possible to build an emotional bond with a machine based on the projection of the instrumental attitudes of people to each other.

Alterity relation is a description of a situation when technology behaves as a quasi-Other or a quasi-human being. It happens when technology focuses human attention on itself and we can cooperate with the machine as if we have the assistance of a human being. A good example of this is robots, but even less sophisticated ATMs are also a technology that replaces a person from a bank counter, and up to the moment when this interaction fulfils our instrumental needs it can be accepted and satisfactory. Quasi-Other literally can be treated as a projection of the skills and behaviours of humans, which could even lead to thinking about this otherness as quasi-me (Ihde 1990, 107).

Is it not too far to say that we should respect ATMs because they are a functional replacement for a bank assistant? There are a lot of problems with the example of EOD robots used by Gertz to justify his thesis because in this case, the emotional bond with a robot could be explained differently than as an expression of solidarity – it could be a feeling of huge stress and looking for some protecting behaviours which help us to control our life circumstances, of feeling loneliness, of having respect to the weapon which generally protects soldiers, etc. If we replace this EOD robot with an ATM it is highly improbable that there would be anyone who would like to risk their life to protect an ATM feeling bond with it. That is why, in my opinion, the concept of solidarity does not help to justify the thesis of Gertz, but the other concepts introduced by him do it – they are *vulnerability* and *resistance*.

## IV. On Vulnerability, Resistance, and Adequate Regard

As I have recapitulated above, the concept of vulnerability has been introduced by Honneth and has related to resistance and morality. If someone or something can express

1 Some robots were given their EOD badge, their name, the others had been held a funeral, etc.

"morally decisive resistance to its interaction partner" it simultaneously expresses the necessity to be recognized as a person. However, in this statement, there are two problems. The first one is connected with the fact, that Honneth writes here not about the *Phenomenology of Spirit* and master-servant dialectics, but about *Jenaer Realphilosophie*, where the concept of struggle and recognition was mainly understood as a rivalry between the interests of different families and their properties. Even if some of these assumptions are repeated by Hegel in his mature *Philosophy of Right* (Hegel 1991), they are not applied to the *Phenomenology of Spirit* that is why there could be no solidarity in the master-servant dialectics. Moreover, Honneth writes here about "persons," a concept from the Philosophy of Right (and law). "Person" means someone who can be represented by the law, and that is why in Honneth's gradation of recognition we see three moments: love, right, and solidarity. Solidarity, however, is built on previous natural recognition of people in their families and on legal recognition of people as citizens in society. Solidarity, in this sense, cannot be treated as possibly applied to all beings, but only persons, so, in order to justify any solidarity with robots, we should first need to justify that they are persons (Darling 2014; Gunkel 2018; Peeters et al. 2021). Since my argument in this article abstracts from solidarity and focuses on vulnerability, resistance, and adequate regard I will now proceed to analyse these concepts which, as I will demonstrate, allow to discuss the theory of recognition without resorting to the category of person.

The fundamental question to ask at this point is about the type of vulnerability we are referring to when attributing it to technology. Liberati and Nagataki (2019) point out that in the case of humans, we are talking about a specific human condition that makes humans inherently vulnerable. Following Butler, they highlight the fact that humans are mortal beings, susceptible to injury, capable of experiencing pain (as well as pleasure), which arises from the fact that we are embodied beings (Butler 2004). The body makes all humans similar to each other in their vulnerabilities, as well as in their abilities to overcome them. Coeckelbergh explicitly states that, existentially, humans are vulnerable and naked (Coeckelbergh 2013). Liberati and Nagataki, drawing on the phenomenological tradition, indicate that it is precisely due to existential vulnerability that humans are compelled to live in community with others. However, this in itself exposes individuals to the gaze of others, a moral confrontation with their faces (Lévinas 1987), which leaves humans not indifferent to the life of others. It also involves encounters with people that demand a response and, reciprocally, shape the subject's relationship to oneself (Sartre 2001). Therefore, humans are vulnerable in two general senses: existentially-physically due to the possession of a fragile and sensitive body, and socially due to the exposure to the necessity of living among other people. So, can these two senses of vulnerability in any way be applicable to technologies?

The dependence of humans on humans, individuals on community, and also other beings on human will, was perfectly captured by J.-J. Rousseau when he said:

> the first and most simple operations of the human soul, I think I can distinguish (…) prior to reason; one of them interests us deeply in our own preservation and welfare, the other inspires us with a natural aversion to seeing any other being, but especially any being like ourselves, suffer or perish (Rousseau 2002, 84).

The above quote indicates that Rousseau perceived human nature as inclined to care for itself while avoiding the suffering of others. However, it is essential to note that Rousseau extends the human capacity for empathy to "any other being," including humans. Thus, he does not assume that only humans are "beings" but rather that humans are included in the category of beings able to suffer or perish. The consequences of Rousseau's statement are significant, as we know that the socio-political theory of this thinker was crucial for German idealism from Kant to Hegel (Church 2010; Neuhouser 2000). If we consistently adopt Rousseau's idea that humans feel a "natural aversion" at the sight of the suffering and death of other beings, then the issue of extending empathy to non-human beings is not so problematic (see also Coeckelbergh 2018). It arises from human sensitivity, which is even prior to reason and rationalization of human behaviour. The question remains about what it means to suffer when we talk about non-human beings. To a lesser extent, this is a subject of controversy in the case of animals and plants, i.e., biological entities, where biology can point to the natural reactions of organisms to pain and thereby prove that despite the difficulty in communicating their suffering to humans, plants and animals undoubtedly feel pain and respond to challenging conditions in a manner analogous to humans, such as stress. However, if we return to the example of soldiers rescuing robots on the battlefield, it is less understandable to extend the capacity for suffering to artificial artifacts created by humans.

As mentioned above, Gertz suggests that this extension of empathetic feelings results from identifying with robots due to their functional equivalence to humans. As I also mentioned, in my opinion, this is not a sufficient argument, and the shift of attention from functional solidarity to vulnerability and resistance seems more justified. Of course, the vulnerability of robots is different from that of humans (Coeckelbergh 2013), but undoubtedly, "vulnerability of the other transforms the subject into an ethical being" (Liberati & Nagataki 2019, 349–340). This means that regardless of what that vulnerability is or where it comes from, it is essential for the subject, and more broadly for social relationships, as it influences the transformation of the subject into a moral agent. This argument, built on Lévinas's theory, corresponds to Honneth's argument. It is not the mortality of the Other that forms the basis for recognition but the ability to influence and evoke morally relevant action. Honneth associates this normative effect of recognition with resistance, which involves the ability to repel an attack, self-defence, or the difficulty of destroying the opponent. If we consider that robots accompanying humans in warfare are not only treated as companions but also resist easy destruction, which requires humans to use violence, they ultimately elicit moral resistance against easily abandoning such a companion even in a life-threatening situation.

In other words, the vulnerability and resistance of robots – on the one hand, the fact that they can be destroyed, but at the same time, their destruction requires humans to use violence, and thus the robot can offer material resistance – evoke certain moral effects in the subject (Cappuccio et al. 2020), regardless of whether robots "actually" feel pain. I abstract at this point from determining whether the fact that technology evokes specific emotions in humans is morally right or not (Brinck & Balkenius 2020), and I assume that the emotions themselves, once they arise, are genuine. Therefore, we evaluate not so much the truth or falsity of their ontological basis but their moral effects. These effects are significant because they reveal the unique role of the Other in shaping the subject. In the theory of recognition, we are accustomed to assuming that recognition must inherently be reciprocal (Brandom 2007). However, what if we replace the Other not only with technology but with technology that does not, in any way, even create an illusion of reciprocity? Will we still be talking about recognition and its normative consequences in that case?

To answer the abovementioned question, I will refer to the interpretation of the theory of recognition in the sense of adequate regard proposed by Arto Laitinen (Laitinen 2010; Laitinen 2011) and developed by Rosalie Waelen. Laitinen observes that the classical concept of recognition assumes that A is recognized by B, which means that A is aware of this recognition and reciprocally attributes the capability of recognizing to B. In this model, the awareness of being recognized is crucial for the emergence of actual recognition. In the second model, proposed by Laitinen, A recognizes B but does not receive recognition from B itself and is not aware of this misrecognition. "The only restriction that the adequate regard suggests for what counts as recognition in the relevant sense is that it must be responsiveness to normatively relevant features" (Laitinen 2010, 326). Laitinen observes that recognition applies not only to specific individuals (as in the reciprocity model) but also to specific qualities and features, which need not only be attributed to human beings but can also apply to artificial legal entities (institutions, states), animals and the broader natural world, as well as works of art. The fact that we recognize in these entities features deserving recognition means that they receive acknowledgment from us. The adequate regard model can be applied to technology because technology can recognize, for example, the subject's needs as essential to fulfil but does not demand recognition of its needs (such as access to electrical energy) as equivalent to humans. On the other hand, technology may also fail to recognize some entities as humans, as in the case of AI used for facial recognition (Waelen 2022), and thus engage in misrecognition towards them. However, Waelen points out that the second model of recognition allows us to indicate two important consequences.

> If we follow the adequate regard account, first of all, it does not matter if the person considers the technology to be capable of recognizing them. All that matters under this understanding of recognition is the effect the system has on the person's self-development. (…) Moreover, if an individual perceives facial recognition, or any technology for that matter, as an entity capable of giving them

respect or esteem, the failure of this technology to do so can also harm their self-development (Waelen 2022).

Regardless of whether it involves recognizing technology as equal to humans, as is the case with soldiers rescuing robots, or being identified by AI as a human, as happens with facial recognition technology, it is crucial, firstly, that such non-human beings evoke specific effects on a person's self-development, and secondly, that technology is capable of showing respect to humans, influencing their self-perception. In other words, non-human beings are moral entities because they evoke moral consequences in the subject (Cappuccio et al. 2020). Importantly, I do not resolve at this point whether non-human beings should be considered as persons in the legal sense but undoubtedly, one cannot easily ignore their co-shaping of normative relationships with humans (Laitinen 2016). Due to the social consequences of building relationships with technology, updating the theory of recognition in this context is crucial. In the subject literature, social robots are often discussed as builders of bonds with humans, capable of creating pseudo-recognition (Cappuccio et al. 2020). However, as I have shown, the theory of recognition is broader than just real or "pseudo" or "illusional" mutual relationships. To be associated with recognition, technology does not necessarily have to be in a conscious relationship with a human, and conversely, recognizing consciousness in technology is not necessary for it to influence the recognition relationship with humans (Laitinen 2010, 326).

Behaviours of people rescuing robots can be explained by virtue ethics or elements of the theory of recognition (Cappuccio et al. 2020), such as solidarity with robots (Gertz 2018). However, in such cases, the explanation boils down to indicating the moral motivations behind human actions. If we look at the theory of recognition from a technological perspective, we will notice, firstly, that technology can influence recognition, for example, the self-perception of an individual when experiencing being recognized by technology as a representative of a particular social group. This recognition can have both elevating and diminishing characteristics depending on the situation. Importantly, recognition occurs unilaterally here – technology recognizes a person as X, but the person does not necessarily have the conditions for a reciprocal reaction to such recognition (e.g., in facial recognition technologies). Secondly, technology can "get recognition" (Laitinen 2010, 326) in the eyes of a human as an entity susceptible to destruction and resistant to violence. This, again, is not solely the result of a mutual bond with a human but can be an expression of respect for the capabilities that technology offers in various situations, including the protection of human life, access to knowledge and communication, or human mental and physical development.

Therefore, the advocated, in this article, perspective of relationality in the approach to technology, considered from the standpoint of vulnerability, resistance, and adequate regard, allows for the simultaneous recognition of the normative foundation of the human-technology relationship rooted in human sensitivity and the ability to empathise even with technological artifacts (Coeckelbergh 2018). It also highlights the moral consequences of

unilateral recognition of humans by technology and of technology by humans.

## V. Conclusions

In this article, I have demonstrated that the theory of recognition, as a normative theory based on building social relations between humans and the "Other," does not necessarily have to be reciprocal in principle to evoke moral consequences. The question I posed in this article is whether technology can take the place of the "Other" in the recognition relation and whether such a relation would still be considered recognition. In response, I first reconstructed Honneth's theory and its limitations in studying interpersonal relations, revealing that it is not straightforward to extend this theory to the study of technology. However, if one were to narrow the understanding of the "Other" and assume that it does not have to be understood as self-awareness, the consequences of such a categorical shift yield interesting research results.

Gertz attempted to diagnose the human-technology relationship in the context of recognition theory based on Hegel, Honneth, and Ihde. However, his key argument was built on the concept of solidarity with robots performing functionally equivalent social roles to humans. In this argument, humans effectively identify with a social role rather than the robot itself. Therefore, following the paths suggested by Gertz, I proposed delving into the concepts of vulnerability and resistance. These concepts allow us to indicate that the human ability to empathise with technological artifacts is not an isolated phenomenon but rather a human capacity to extend sensitivity to non-human beings.

Vulnerability and resistance in technology are clearly different from those in humans. However, the fact that humans are capable of recognizing in technology not only a partner for interaction but also inherent value, represents an expansion of previous understandings of the human-technology relationship. Furthermore, following Liberati and Nagataki, I emphasized that the vulnerability of the other influences the shaping of the subject, meaning that how we treat other entities has morally significant implications for ourselves. The fact that technology can be the object of human concern raises the question of what type of recognition is involved in this relationship, and whether it can be labelled as recognition at all.

Following Laitinen and Waelen, I point out that recognition does not necessarily always entail a situation of reciprocity, and for technology studies, the key is the effect it produces on human behaviour in relation to the specific technology. Such a relationship, although non-reciprocal, brings about certain moral outcomes. Firstly, technology can recognize a person as X, which may be perceived as a positive dimension of recognition or as a form of misrecognition. Secondly, a person may recognize technology as X, leading to a desire to protect it and engage in practices of care, or adopting a neutral-instrumental attitude towards technology. Here, too, we can, in a sense, inquire whether some forms of relationships built with technology are based on proper recognition or misrecognition.

Until now, researchers have attempted to label the substitution of technology in place of the "Other" as an "illicit move" (Gertz 2018) or "pseudo-recognition" (Cappuccio et al. 2020). However, for further research, it is crucial to note that an increasing number of relationships built by humans have the character of relationships with or through technology. Therefore, it is not sensibly possible to avoid questioning recognition because, regardless of how broadly we intend to apply this concept (whether only to interpersonal relationships or also to relationships between humans and technology), it is necessary to revitalize the assumptions of this theory and explain how it can operate in the world of modern technologies capable of shaping satisfying relationships with humans and influencing their behaviour.

## References

Brandom R. B. 2007. "The Structure of Desire and Recognition: Self-consciousness and Self-constitution," *Philosophy & Social Criticism* 33(1):127–150. https://doi.org/10.1177/0191453707071389

Brinck I. & Balkenius C. 2020. "Mutual Recognition in Human-Robot Interaction: A Deflationary Account," *Philosophy & Technology* 33(1):53–70. https://doi.org/10.1007/s13347-018-0339-x

Bryson J. J. 2010. "Robots Should Be Slaves," in Y. Wilks (Ed.), *Close Engagements with Artificial Companions: Key Social, Psychological, Ethical and Design Issues* (pp. 63–74). Amsterdam: John Benjamins Publishing Company. https://doi.org/10.1075/nlp.8.11bry

Butler J. 1999. *Subjects of Desire: Hegelian Reflections in Twentieth-century France*. New York: Columbia University Press.

Butler J. 2004. *Precarious Life: The Powers of Mourning*. London: Verso.

Butler J. 2021a. *Excitable Speech. A Politics of the Performative*. London – New York: Routledge.

Butler J. 2021b. "Recognition and the Social Bond: A Response to Axel Honneth," in H. Ikäheimo, K. Lepold, & T. Stahl (Eds.), *Recognition and Ambivalence: Judith Butler, Axel Honneth, and Beyond* (pp. 31–54). New York: Columbia University Press. https://doi.org/10.7312/ikah17760-003

Cappuccio M. L., Peeters A., & McDonald W. 2020. "Sympathy for Dolores: Moral Consideration for Robots Based on Virtue and Recognition," *Philosophy & Technology* 33(1):9–31. https://doi.org/10.1007/s13347-019-0341-y

Church J. 2010. "The Freedom of Desire: Hegel's Response to Rousseau on the Problem of Civil Society," *American Journal of Political Science* 54(1):125–139. https://doi.org/10.1111/j.1540-5907.2009.00422.x

Coeckelbergh M. 2013. *Human Being @ Risk: Enhancement, Technology, and the Evaluation of Vulnerability Transformations | SpringerLink*. Springer. https://link.springer.com/book/10.1007/978-94-007-6025-7

Coeckelbergh M. 2015. "The Tragedy of the Master: Automation, Vulnerability, and Distance," *Ethics and Information Technology* 17(3):219–229. https://doi.org/10.1007/s10676-015-9377-6

Coeckelbergh M. 2018. "Why Care About Robots? Empathy, Moral Standing, and the Language of Suffering," *Kairos. Journal of Philosophy & Science* 20(1):141–158. https://doi.org/10.2478/kjps-2018-0007

Darling K. 2014. "Extending Legal Rights to Social Robots: The Effects of Anthropomorphism, Empathy, and Violent Behavior Towards Robotic Objects," *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.2044797

Floridi L., Cowls J., Beltrametti M., Chatila R., Chazerand P., Dignum V., Luetge C., Madelin R., Pagallo U., Rossi F., Schafer B., Valcke P., & Vayena E. 2018. "AI4People – An Ethical Framework for a Good AI Society: Opportunities, Risks, Principles, and Recommendations," *Minds and Machines* 28(4):689–707. https://doi.org/10.1007/s11023-018-9482-5

Floridi L. & Sanders J. W. 2004. "On the Morality of Artificial Agents," *Minds and Machines* 14(3):349–379. https://doi.org/10.1023/B:MIND.0000035461.63578.9d

Gertz N. 2018. "Hegel, the Struggle for Recognition, and Robots," *Techné: Research in Philosophy and Technology* 22(2):138–157. https://doi.org/10.5840/techne201832080

Gunkel D. J. 2018. "The Other Question: Can and Should Robots Have Rights?" *Ethics and Information Technology* 20:87–99. http://doi.org/10.1007/s10676-017-9442-4

Habermas J. 1974. *Theory and Practice*. Trans. by J. Viertel. Boston: Beacon Press.

Hegel G. W. F. 1977. *Phenomenology of Spirit*. Trans. by A. V. Miller. Oxford – New York – Toronto – Melbourne: Oxford University Press.

Hegel G. W. F. 1983. *Hegel and the Human Spirit. A Translation of the Jena Lectures of Spirit (1805-6)* by L. Rauch, with *Commentary*. Detroit: Wayne State University.

Hegel G. W. F. 1991. *Elements of the Philosophy of Right*, trans. by H. B. Nisbet. Cambridge: Cambridge University Press.

Honneth A. 1995. *The Struggle for Recognition*. Cambridge: The MIT Press. https://mitpress.mit.edu/9780262581479/the-struggle-for-recognition/

Honneth A. 2021. "Recognition between Power and Normativity. A Hegelian Critique of Judith Butler," in H. Ikaheimo, K. Lepold & T. Stahl (Eds.), *Recognition and Ambivalence. New Directions in Critical Theory* (pp. 20–25). New York: Columbia University Press.

Ihde D. 1990. *Technology and the Lifeworld.* Bloomington: Indiana University Press.

Kloc-Konkołowicz J. 2015. *Anerkennung als Verpflichtung: Klassische Konzepte der Anerkennung und ihre Bedeutung für die aktuelle Debatte*. Würzburg: Königshausen & Neumann. URL: https://philpapers.org/rec/KLOAAV

Laitinen A. 2010. "On the Scope of 'Recognition': The Role of Adequate Regard and Mutuality," in H.-C. Schmidt am Busch & C. F. Zurn (Eds.), *Philosophy of Recognition* (pp. 319–342). Lanham: Lexington Books.

Laitinen A. 2011. "Recognition, Acknowledgement, And Acceptance," in H. Ikäheimo & A. Laitinen (Eds.), *Recognition and Social Ontology* (pp. 309–347). Leiden: Brill. hhttps://doi.org/10.1163/ej.9789004202900.i-398.97

Laitinen A. 2016. "Robots and Human Sociality: Normative Expectations, the Need for Recognition, and the Social Bases of Self-Esteem," in J. Seibt, M. Norskov, & S. Schack Andersen (Eds.), *What Social Robots Can and Should Do* (pp. 313–322). Amsterdam: IOS Press. https://doi.org/10.3233/978-1-61499-708-5-313

Lévinas E. 1987. *Collected Philosophical Papers* (T. 100). Dordrecht: Springer Netherlands. https://doi.org/10.1007/978-94-009-4364-3

Liberati N. & Nagataki S. 2019. "Vulnerability under the Gaze of Robots: Relations among Humans and Robots," *AI & SOCIETY* 34(2):333–342. https://doi.org/10.1007/s00146-018-0849-1

Musiał M. 2016. "Magical Thinking and Empathy Towards Robots," in J. Seibt, M. Norskov, & S. Schack Andersen (Eds.), *What Social Robots Can and Should Do* (pp. 347–356). Amsterdam: IOS Press. https://doi.org/10.3233/978-1-61499-708-5-347

Neuhouser F. 2000. *Foundations of Hegel's Social Theory: Actualizing Freedom*. Cambridge: Harvard University Press.

Peeters M. M. M., van Diggelen J., van den Bosch K., Bronkhorst A., Neerincx M. A., Schraagen J. M., & Raaijmakers S. 2021. "Hybrid Collective Intelligence in a Human–AI Society," *AI & SOCIETY* 36(1):217–238. https://doi.org/10.1007/s00146-020-01005-y

Rousseau J.-J. 2002. *The Social Contract: And, The First and Second Discourses*. New Haven: Yale University Press.

Sabl A. 2001. "False Frankensteins: The Costs and Illusions of Computer Mastery," *Techné: Research in Philosophy and Technology* 5(3):144–157. https://doi.org/10.5840/techne2001535

Sartre J.-P. 2001. *Being and Nothingness: An Essay in Phenomenological Ontology*. New York: Citadel Press.

Singer P. 2010. *Wired for War*. New York: The Penguin Press.

Taylor C. 1994. "The Politics of Recognition," in Amy Gutmann (Ed.), *Multiculturalism: Examining the Politics of Recognition* (pp. 25–73). Princeton: Princeton University Press. https://doi.org/10.1515/9781400821402-004

Verbeek P.-P. 2011. *Moralizing Technology*. Chicago, London: University of Chicago Press.

Waelen R. A. 2022. “The Struggle for Recognition in the Age of Facial Recognition Technology,” *AI and Ethics* 3(1):215–222. https://doi.org/10.1007/s43681-022-00146-8

Waelen R. & Wieczorek M. 2022. “The Struggle for AI’s Recognition: Understanding the Normative Implications of Gender Bias in AI with Honneth’s Theory of Recognition,” *Philosophy & Technology* 35(2):53. https://doi.org/10.1007/s13347-022-00548-w