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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.

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