

**From the Split
Between Society
and Nature Towards
a Concept of
Socio-Natural Ropes**

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Abstract: This article develops a critique of Hegel's treatment of nature in the construction of his concept of the system of needs in the *Philosophy of Right*. It argues that the system of needs is an undigested import from early political economy, repeating some of the latter's own borrowings from philosophical anthropology. This unfortunate import causes nature to be turned into an ineffectual hand-puppet, stripped of all specific agency, but serving as an apology for the excesses of civil society in the shape of useless luxury goods and soaring inequalities. The unfolding complexity of every genus and layer and species of nature as experienced in Hegel's own *Philosophy of Nature* is effaced and gives way to a simplistic dichotomy of system and environment, a dichotomy already implicit in Adam Smith's account of the workings of the market, a dichotomy whose horrendous practical effects have resounded through the centuries all the way down to today's apologies for ecological disaster in discourses that speak of 'environmental externalities'. To work our way out of this conceptual framework which posits nature as somehow outside society, the article begins to assemble elements for a remapping of the regions of society in which we find ourselves, conceptualizing our practices as "socio-natural" ropes, intertwining natural processes with social processes.

Keywords: System of needs, human nature, socio-natural ropes, political economy, raw material, property

I heard on the radio that only a vaccination program will save us; or was it the total modification of our behaviour? You ask 'what we are being saved from?' but you already know the answer: our shared droplets, our fateful interactions with each other and the environment. In the Spring of 2020, the World Health Organization warned us that a "whole-of-government and whole-of-society" response was necessary to stop the pandemic - new heights had been reached in the hyperbole of impotence. When one turns to the aetiology of the pandemic, whichever theory one follows, there is always to be found a dysfunctional relationship between society and nature. Pundits declare this relationship should be fixed by the government.

Not so long ago, in the years before the pandemic, one often came across quite a different articulation of these categories 'society', 'nature', and 'government'. Declarations were made to the effect that only a social-movement could save nature (and humanity) from misgovernment. Occupy Wall Street, the Indignados, Pólemos, Extinction Rebellion, Nuit Debout, the gilets-jaunes became popular research topics and the refusal of representation, leadership, party-structure or the most basic organization were heralded as harbingers of some wonderful event in the realm of politics. Nowadays such a belief seems naïve if not completely mythological.

Perhaps we could take a step towards more clarity in the way we articulate nature, society and government. One way of doing this is to investigate one of the more influential modern articulations of society and government (along with nature); that of Hegel. The wager is that Hegel's definition and articulation of these terms has been so influential in European political thinking that even now we labour under the weight and consequences of his conceptual venture. What is proposed here is a bare outline of an early investigation, not carried out within the field of Hegel scholarship, but rather diagonally, carrying in some baggage and insights drawn from work on the ontology of political action in modernity.

1) Thick versus thin concepts of society: the limits of philosophical anthropology

Hegel is often cited as the first philosopher to develop a 'thick concept' of society. Part of his construction of that concept – the 'system of needs' – is the result of Hegel's integration of the relatively new discourse of political economy. Our focus will be the consequences of that borrowing for Hegel's treatment of nature from the standpoint of civil society.

Hegel repeatedly critiques social contract theory for its inadequate conception of the relationship between the individual and the state. However, in borrowing the notion of the 'system of needs' from early political economy in the work of Smith he is indirectly drawing on the philosophical anthropology found in social contract theory, even as it persists in an apparent critic of social contracts, such as Hume. In Hobbes, Locke and even Hume – who exerted no little influence on Smith – nature takes the form of 'human nature' in an anthropology that models the inadequacies of collective organization – the 'collective action problems' – as outcomes of individual passions and calculations of utility. This approach results in a 'thin' concept of society, since there is no account of the genesis and operation of what I call 'regional formations' – sub-groups - and their impact on the overall shape and functioning of society. Hobbes registers the existence of 'sects, associations, etc' in chapter 22 of the *Leviathan*, but more as a threat to the state to be banned than as a phenomenon to explain and explore. Locke does develop a conception of the family, in opposition to Filmer's patriarchal account of both family and political power, and the family is fundamental, as the seat of private property and its transmission, in the construction of society. However, there is no account of different social groups or domains of society, such as the legal system, religion, education or medicine. Locke does lay out an apology for the inequality of wealth in his *Second Treatise*, but he offers no account of the genesis of social classes.

In David Hume's *Treatise of Human Nature*, the genesis of society passes via his anthropology of work, an activity that emerges from the

interplay of the passions. Claude Gautier has shown how this play is triggered for Hume by the scarcity of the goods provided by nature, the multiplication of needs on the part of human nature, and the latter's weaknesses and incapacities.¹ These individual human weaknesses are overcome through cooperation, that is, via the institution of the division of labour. Henceforth the social group can provide for multiple needs by means of both the combination and the specialization of productive forces. In Book II of the *Treatise* Hume sets out a theory of the formation of groups through the operation of the passions.² By employing that framework Hume is in a position to write a history of society, a history ruled by contingency rather than any telos.³ However, despite Hume's recognition of the role of the division of labour in forming social groups, he does not supply any account of the different manners in which social groups function or operate.

Philosophers have organized and partitioned the political body through the division of labour since Plato and Aristotle: this is the single count or miscount of who belongs where that Jacques Rancière tracks and critiques across the tradition of European philosophy.⁴ But is it not possible that society be organized by means of more than just one count? Didn't religious affiliation, geographical origins, affiliation to an estate, last name, and recent family history also play a highly determinant role in structuring the early modern society that Hobbes, Locke and Hobbes faced? The point is not to engage in an anachronistic critique of earlier philosophers, armed with Hegel's concept of civil society. The point is rather to understand how Hegel's integration of a specific concept from this tradition – the 'system of needs' – undermines his own attempt to develop a thick account of civil society. The concept of the system of needs is drawn from Hegel's reading of political economy: he names Smith, Say and Ricardo as key in developing this modern science of "mass relationships and mass movements" (§189).⁵ It forms one part of his account of civil society, the other parts being the administration of justice, the police and corporations. These parts do not form a simple unity. The police and the corporations play the role of resolving those conflicts and disequilibria that result from the workings of the system of needs. Yet can a concept drawn from a heterogeneous discipline, with its own baggage and consequences, be amalgamated into a unity with other concepts such the police and corporations? Does its origin

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1 Gautier 2001.

2 See Feltham 2019.

3 Ibid.

4 Rancière 2003.

5 Hegel 1991.

in philosophical anthropology – which gave rise to Hobbes, Locke and Hume's *thin* concepts of society – preclude its harmonious integration within Hegel's thick concept of society?

Faced with these questions, our approach will be to focus solely the articulation of nature and society. In doing so, we will judge Hegel's account according to the following three criteria for a thick concept of society – namely one that:

Explains how a society has a history rather than a destiny, by identifying which factors bring about patterns versus contingency in that history;

Explains the genesis and differential operation of various social groupings from families to professions, estates, and religious affiliations;

Explains the formation and regulation of relationships between subjects who are not family-members, nor in a lord-slave couple, but belong to different social groups.

2) Four figures of nature in the system of needs

“If nature has no independence and is seemingly only meaningful in so far as it serves human interests, the question is: is Hegel's social and political philosophy able to provide a relationship to nature that is not one of either alienation or domination? That is, can it be incorporated into the distinctive model of freedom that the text articulates—being at home with ourselves in otherness.”

Simon Lumsden,⁶

In Hegel's account of the system of needs nature occurs in four shapes.

First nature is understood in the shape of 'human nature', wherein the latter is characterized by a limitless multiplication of needs; needs that include not just food and water like most animals, but also extensive shelter and clothing (§§185, 191-2). Here Hume would add that this multiplication occurs due to the weaknesses and incapacities specific to human beings. Needs give rise to the demand for external things to satisfy them. These things that happen to be the property of other persons, and hence humans engage in cooperation and trade. In doing so they recognize each other as proprietors and economic agents and engage in the socialization of these needs. Hegel calls this process of trade exchange the moment of universality (§§182-6). Note that it is solely in the context of the system of needs that Hegel refers to the individual subject of right by its natural appellation, a 'human being' (§190). The naturalness of human need, for Hegel, lies in its uncontrollable

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6 Lumsden 2021, p.101.

proliferation. It thus introduces an element of disorder, of disequilibrium, as the germ of socialization. We shall thus call this *human nature as disequilibrium*.

The second place in which nature intervenes is at the other pole of exchange: the proprietor of the desired goods manufactures them by her free will from “the material which is immediately provided by nature” (§196). Later on Hegel issues a caveat stating that this natural material is comprehended quite differently according to whether one belongs to the first or the second estate, that is, to agriculture or trade and industry. Private property emerges as an institution with the advent of agriculture, but farming is orientated by the goal of subsistence rather than that of acquisition and gain. In farming, the material provided by nature is ‘received’ by humans as a God-given ‘alien gift’. In the Addition from Hotho’s lecture notes Hegel remarks that in the first estate human industry is subordinate to nature. In contrast, in the estate of business, “products of nature can only be understood as raw materials” (§203). Moreover, its felt condition is one of independence. It basks in an untrammelled assertion of selfhood, rights, legal order and freedom, since “what it produces and enjoys, it owes chiefly to itself and to its own activity” (§204). On the other hand,

the first estate feels itself to be in a condition of dependency on nature. It is subject to the sequence of the seasons, and the relative unpredictability of the climate. Hegel qualifies this contrast with a prescient observation: “In our times, the [agricultural] economy, too, is run in a reflective manner, like a factory, and it accordingly takes on a character like that of the second estate and opposed to its own character of naturalness” (§203). Hence in modern civil society there is a marked tendency for nature to appear and be understood as provider of raw materials for the production of goods. But what are raw materials or *Vermögen* (assets, values, capacities)? At this point Hegel simply reuses the Aristotelian productivist ontology whereby raw materials are “given form” through work by the “reflection and understanding” which is orientated to “[mediate] the needs and work of others” (Addition §203). Raw materials are thus passive: their form is readily altered or “processed” (Addition §196).

It so happens that this opposition between a will-driven process of formation, and a ready matter has already occurred in the *Philosophy of Right*. Hegel sets up this contrast between activity and passivity in his discussion of what it means to fully possess something in an early section of Part I on “Abstract Right” (§59-62). To possess a thing is to use it. Hegel himself connects his treatments of possession, and of nature as raw material, in paragraphs 195 and 203. He points out that the multiplication of needs, dependency and want is “confronted with a material that offers infinite resistance, i.e. with external means whose particular character is that they are the property of the free will [of

others] and are therefore absolutely unwielding” (§195). Later he makes the general historical point that “the introduction of agriculture...brings with it the cultivation of the soil, and in consequence exclusively private property” (§203). In his earlier analysis of private property he mounts an argument against various forms of feudal property which he understands as involving ‘partial or temporary possession’ rather than “full ownership”, with some of them implying not only “empty proprietorship” but even a “madness of the personality” (§62). In contrast, he argues that “Ownership is therefore essentially free and complete ownership” because “the thing as mine” should be “wholly penetrable by my will” (§62). He judges that historical forms of shared or mutual ownership, such as between a landlord and a longterm tenant, are not fully rational and certainly not contemporary with the progress of spirit in the modern age towards the principle of “freedom of property” (§62-3).

So what then does it mean for a thing to be completely penetrable by my will? Hegel defines the use of a thing in the following terms: “Use is the realization of my need through the alteration, destruction or consumption of the thing, whose selfless nature is thereby revealed and which thus fulfils its destiny” (§59). In this passage, the thing is determined as possessing no inner determinations or specific properties that would condition its reaction to any manmade interventions seeking to alter or destroy it. The thing is conceived of in line with Aristotle’s conception of matter as passive plasticity, ready to receive form. This is obviously wrong. As Aristotle was already compelled to recognize, all materials have their own forms. All materials offer a specific resistances and affordances to operations of cutting, joining, shaping, melting, heating, cooling and moulding. Particular tools are required for each process. All these operations produce residues or remainders, whose form is recognized with difficulty, and which may or may not be categorized as ‘waste’.⁷ Hegel goes so far as to argue that the identity of a thing is solely determined by its use: he writes, “the field is a field only insofar as it produces a crop” (Addition, §61). But then what name and identity do we attribute to fields that lie fallow for a year? Surely they retain a longterm or potential use? Surely their utility – their value to speak in the terms of §63 – is increased by lying fallow?

Hence the second conception of nature in Hegel’s system of needs is that of a plastic and passive material which is available to humanity in order to be worked up into a form satisfying the needs of marketgoers. Any byproducts of such processes, any specific determinations of types of natural material, is left by the wayside in this Aristotelian and productivist account of work. We shall call this nature as *plastic material*.

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7 See Georges Bataille’s exploration of the ‘formless’ in connection with his concept of ‘general economy’ in Bataille 1985.

The third shape of nature occurs in Hegel's rejection of any natural measure of need. He does this in two ways; first through a caricature and a dismissal of Rousseau's account of the state of nature, and second through the condemnation of Diogenes as a mere oppositional reaction to the luxury of Athens (§194-5). What is interesting is the way in which Hegel rejects natural need: he does not deny that we can speak of natural needs. Indeed he describes the level of natural needs as characterized by "external necessity...inner contingency, and...arbitrariness" (§194). He then makes a double critique, in both an ontological register and a normative register. In ontological terms, he claims that natural needs never appear without having already been socialized; that is, need always occurs as "a combination of immediate or natural needs and the spiritual needs of representational thought", adding that "the spiritual needs, as the universal, predominate" (§194). In other words, as soon as one human being communicates with another about what is good to eat, the need to eat has been rendered universal. On the normative register, he argues that "a condition in which natural needs were immediately satisfied would merely be one in which spirituality was immersed in nature, and hence a condition of savagery and unfreedom; whereas freedom consists in the reflection of the spiritual into itself, its distinction from the natural, and the reflection upon the latter" (§194). We shall this third shape nature as inaccessible.

The fourth place in which nature occurs in Hegel's construction of the system of needs is in paragraph 200 where he draws up an apology for the division of labour and economic inequality. He writes:

The possibility of sharing in the universal resources- i.e. of holding particular resources – is, however, conditional upon one's own immediate basic assets (i.e. capital) on the one hand, and upon one's skill on the other; the latter in turn is itself conditioned by the former, but also by contingent circumstances whose variety gives rise to *differences* in the *development* of natural physical and mental aptitudes which are already unequal in themselves...these differences...necessarily result in *inequalities in the resources and skills* of individuals. (§200)

There is a kind of retrospective illusion at stake here, one that Deleuze critiqued in the third chapter of *Difference and Repetition*, whereby the reflective and willed "inequality of human beings in civil society" is explained and grounded in the immediate and arbitrary "inequality posited by nature" (§200). Here the social order is understood as the expression of an already existing natural order. This prior natural order, and its ascendancy over the 'liberation' and reflectivity and possibilities of the spiritual realm, does not enter into a reconciliatory dialectic with the figures of nature as disequilibrium, plastic material, or inaccessible.

3) The relationship between the system of needs and nature

So much for the inventory of ways in which Hegel places and effaces nature in the system of needs. Our next step is to diagnose the relationship nature and the system of needs. The contrast between the two is evident: the natural is particular, immersed in itself, and all transformations are brought about through passive subjection to external chains of necessity. The social is universal, involves reflection and thus internal determination, and an element of choice. But what kind of relationship does this imply?

The first characteristic of this relationship is separation. The spiritual realm operates through self-reflection which entails its distinction from nature, a distinction that allows freedom from external necessity. This general separation is then particularized and multiplied between each parcel of natural material that is extracted from its original site and turned into a discrete resource to be used within the system of needs. Private property is exclusive inasmuch as it is separate.

The second characteristic of the relationship is domination. Not only does the spiritual 'predominate' over the natural in our understanding of human needs, but as we saw with Hegel's treatment of the use of property and the working up of raw materials in manufacture, the natural thing is understood to be passive plastic matter, available for any transformations or destructions willed by human beings.

The third characteristic of the relationship concerns modality. In the spiritual realm the self deliberately, through an orientated process, actualizes one out of a set of possibilities. From the standpoint of the spiritual realm, the natural appears as contingency or blind necessity. In other words, either phenomena simply happen, for no apparent reason, and it appears equally likely that other phenomena could occur, or phenomena occur repeatedly with no variation as a kind of forced imposition. But aren't these precisely the modalities of our contemporary predicament under the pandemic. Epidemiologists' warnings, their implications for public health policies, daily statistical variations, and wildly varying forecasts dominated political deliberation and decision-making.

But the relationship between nature and society according to Hegel is not just characterized by separation, domination and split modalities. It is also a dynamic relationship. How does this work?

Hegel denies the possibility of any natural measure to the multiplication of needs by judging Diogenes, the cynic, to have adopted his regime of simplified and reduced needs as a mere oppositional reaction to the Athenian culture of luxury. But Hegel would have been aware – much like Adam Smith, one of his sources – of the republican commonplace that luxury and satisfaction of every desire leads to corruption and decadence. He would have been aware of Rousseau's own warnings of the diseases and maladies of overconsumption. Indeed, the

most far-reaching and simplest critique of the multiplication of needs is found in Rousseau's text in the concept of perfectibility, according to which every technical invention designed to increase convenience and efficacy, also, backhandedly, induces incapacity and degraded abilities. In other words, a technique employed by humans to satisfy their needs not only creates further needs – Hegel sees this clearly in §191 – but actively deteriorates previously existing human capacities. For Rousseau, the body and spirit are softened through the replacement of effort and agility with facility, and the instrument, once taken for granted, becomes a false necessity. What this means is that the multiplication and modification of needs directly impacts those “natural, physical and mental aptitudes” that Hegel recognizes as determining our fitness for particular professions. In other words, the socialization of a need via a commodity, a technique or a manufacturing process has a series of consequences that can go so far as to transform our own natural aptitudes. Our own nature can thus be transformed. But unlike the passivity of nature as raw material, these transformations induce hard determinations or constraints in our nature; they are not indifferent or infinitely malleable but facilitate or constrain our future activities. There is thus a string of long-term consequences at work whereby any one socialization of a natural need constrains and determines future natural needs and their possible socializations.

4) The systematicity of the system of needs

But why does Hegel use the term ‘system’ in his concept ‘system of needs’? What is systematicity? There appear to be three moments that make up systematicity. The first is that of repetition under the term ‘universal’. Any particular need is universalized into a socially recognized and reproducible need: as soon as an individual announces or declares a need through her/his activity, that need is recognized as a human need, as one that others can experience and thus the demand for its satisfaction, and appropriate techniques for satisfying it, are generalized, they become repeatable. Not only that, but the means for satisfying that end themselves become ends: horses are trained as a means of transport but then we need saddles and bridles, for which we need leather for which we need hides, etc. Hegel calls this movement one ‘of abstraction’ (§191). A need becomes more abstract when it is particularized, that is to say, when it is separated from the natural movement and site of hunger – a tugging feeling in the stomach – to become the specialized and refined ‘need’ for twelve euros worth of fresh fried octopi and a glass of *bianco fermo* from Friuli.

The second moment of systematicity is that of abstract or functional relationships. Hegel explains that the abstraction of needs, and

of means to satisfy ends, “also becomes a determination of the mutual relations between individuals”. He continues: “This universality, as the quality of being recognized, is the moment which makes isolated and abstract needs, means, and modes of satisfaction into concrete, i.e. social ones” (§192). In other words, I recognize the person from whom I buy bread one day in the market as a ‘baker’, a professional who can be relied upon for a supply of bread in the future. From the baker’s standpoint, I become one of her ‘regular customers’, my entire person and individuality reduced to my habitual order of two baguettes and an apricot tart.

The third moment of systematicity is that of the reciprocal dependency of market-goers. I bring my products to market to trade them for goods that will satisfy my needs, but in doing so I satisfy other people’s needs. Hegel writes:

In this dependence and reciprocity of work and the satisfaction of needs, subjective satisfaction turns into a contribution towards the needs of everyone else. By a dialectical movement, the particular is mediated by the universal so that each individual, in earning, producing, and enjoying on his own account, thereby earns and produces for the enjoyment of others. (§199)

As the editor notes in the Nisbet translation, this is most probably an allusion to Adam Smith’s concept of the invisible hand. According to this concept, a local dynamic, the selling and buying of goods at an acceptable price, is not directly orientated towards a global outcome, but nevertheless brings it about. In other words, the aggregation of many individual acts of buying and selling produces a general equilibrium at the level of predictable prices for consumers, and an optimal distribution of resources and skills amongst producers. Smith’s notion of the invisible hand is an instance of what Hegel recognizes in “political economy”, that is to say, “a science [that]...finds the laws underlying a mass of contingent circumstances” (§189). These laws regulate very specific variables, such as prices, or temporary flows of capital into industries depending on their perceived profitability. That is to say, the ‘mass of contingent circumstances’ determined by these laws, and from which these laws arise, are always of a specific kind: they concern “infinitely varied means” for satisfying human needs, or “movements of reciprocal production and exchange” (§201). The determination of these laws does not directly involve the material qualities of the products, though the latter may indirectly determine the perceived utility of a product. It does not directly involve the site of extraction of a raw material, though the latter may indirectly determine the perceived utility or quality of the final product. It does not involve the final destination of a used or consumed product, or the byproducts of its production and consumption. All these factors are external to the reciprocally dependent operations of trade and

production the constitute the market system. Hence when Hegel speaks of the 'system of needs', a key characteristic of its systematicity is its *autonomy*. It constitutes a separate sphere, a distinct type of activity with its own laws, independent of factors belonging to other spheres of activity. Here Hegel takes the separation of the system of needs from nature one step further, towards independence and self-determination.

5) A critique of systematicity

Jurgen Habermas, Marcel Gauchet and Niklas Luhmann, albeit in different projects, have all recognized and celebrated the autonomy of social systems – autonomy with regard to the church or the state – as the unique signature of European modernity. Our project, in contrast, is not to rescue and celebrate some pathetic European singularity, but to examine the cost of this illusion of autonomy specifically with regard to nature, after two-hundred years of its practical application and functioning as a misguided heuristic.

The supposed autonomy of a system is also – and this Luhmann shows at length – its blindness or closure with regard to what it categorizes as its 'environment'. We have seen earlier just how limited Hegel's conception of nature is in the system of needs: nature as disequilibrium (multiplying human needs) sets the system of needs in motion; nature as plastic material is formed into goods to meet human needs; nature as an inaccessible measure of need marks the separation of the system of needs from nature; and nature as an unequal distribution of mental and physical aptitudes nevertheless offers an apology for the social inequality produced by the system of needs. In none of these roles do we find any specific determinations characteristic of a natural being or environment – such as recognized and expounded at great length in Hegel's *Philosophy of Nature*. Nor do we see how those determinations might be carried over into the system of needs, wherein they might play an active role. Nature is included within society in four general shapes in order to be excluded, effaced or ignored at the level of its concrete and specific forms.

This systematicity of Hegel's 'system of needs' – although it can be explained as a consequence of his appropriation of political economy – does not strike me as particularly Hegelian. Indeed, it appears more appropriate, from a Hegelian standpoint, to draw up a diagnosis of the weaknesses of this concept.

Hegel himself in the *Philosophy of Right* offers us a clue as to why this might be the right approach; he remarks of political economy that it extracts 'the understanding' that controls and works within the "endless multitude" of "mass relationships and mass movements" in the economy. Moreover he notes that political economy is "also the field in which the

understanding, with its subjective ends and moral opinions”, gives vent to its discontent and moral irritation” (§189). In short, “in the relation between the satisfaction of subjective particularity, and the needs and free arbitrary will of others, universality [read systematicity] asserts itself, and the resultant manifestation of rationality in the sphere of finitude *is the understanding*” (§189). But the understanding, as we know from *The Science of Logic*, is an inferior form of thinking compared to reason and the cognition of the Idea.

The limitations of the understanding are marked here and there in Hegel’s account of the system of needs. The first mark is that Hegel himself describes a primacy placed on independence and autonomy as characteristic of the second estate’s way of thinking. The estate of industry only understands freedom as autonomy, and there are many other far richer conceptions of freedom generated by the dialectic of the Idea of Right through other institutions. The first estate, in contrast, recognizes and accepts the existence of determining forces from another realm that interfere within its own realm: in simple terms, crops depend on the soil and the weather.

The second limit is that the idea of an autonomous system immediately entails the existence of an outside-to-the-system. This ‘outside’ will not impose its dynamics or laws on the activities constituting the system. Whether or not Hegel anticipates the system-environment distinction is beside the point. Rather, what is striking is the passage in the *Science of Logic* where Hegel describes Leibniz’s monad as a particular but limited phase in the dialectical development of the one and the multiple. He writes: “The *ideating monad* advanced only as far as *plurality* as such, in which each of the ones is only for its own self, and is indifferent to the determinate being and being-for-self of the others” (SL,169).⁸ This is a phase in which a plurality of ones are understood solely as mutually external to each other. What remains entirely problematic and inconsistent from the standpoint of monads is the actual plurality of monads – why and how are there many monads if each monad is entirely closed in upon itself? Hegel writes: “in that indifferent independence of the monads, plurality remains as a fixed fundamental determination, so that the connexion between them falls only in the monad of monads, or in the philosopher who contemplates them” (SL,169-70). It just happens to be the case, following Hegel, that the status of the plurality of systems remains an epistemological and an ontological problem for systems theory – just as it is for the system of needs in Hegel’s *Philosophy of Right*.

A third limitation to the systematicity of the system of needs is found in the multiple and conflicting shapes in which nature is included so as to be excluded. If nature is mere plastic matter to be shaped by the

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8 Hegel 1969, p.169.

productive processes of the system of needs, then how can it also have the determination of its own differential order or distribution of mental and physical capacities amongst the race of human beings? If nature is mere plastic matter, then how can it also have the determination of human beings specified by both their inadequacy to independently meet their needs, and their endlessly proliferating needs? If nature is mere plastic matter seen as resource from the standpoint of the system of needs, how can it be known as something determinate and independent? What exit might there be from the anthropocentrism and productivism of the system of needs for a better understanding of nature? These questions do not meet with an answer at the stage of the independent monadic systems; that is to say, of economies and their externalities.

However complicated Hegel's account of the spiritualization of needs, if the relation between nature and society comes down to a simple dichotomy between the outside and inside, then his construction of civil society will not come close to accounting for the complex intrication of natural and artificial processes that characterizes our needs and their apparent satisfaction. In the history of European political philosophy, ever since Aristotle, it has been the political community that was supposed to define an 'inside' by becoming sovereign – independent and autonomous. In Adam Smith's work, and in Hegel's appropriation of it, it is the system of needs or civil society that becomes an independent sphere. But in Aristotle, the sovereignty of the *polis* was already – as Francis Woolf argues – a mere avatar of the more fundamental ontological priority, identity and discrete being of substance.⁹ Any contemporary philosophy that takes its key from the ontologies of multiplicity developed by Gilles Deleuze and Alain Badiou must proceed to a dismantling of the avatars of unity, identity and substantiality within its proper field. As Philippe Lacoue-Labarthe and Jean-Luc Nancy argued in a deconstructive vein in *Le titre de la lettre*, systematicity is but one more avatar of the metaphysics of presence and its commitment to unity and identity.¹⁰ It just so happens that in the discipline of ecology, due to its commitments to unity and discrete identity, the concept of ecosystem was found to be quite unwieldy in the field.¹¹ Empirically speaking, it proved difficult to determine where one ecosystem began and another ended. It proved nigh impossible to identify an ecosystem's proper state of equilibrium such that disturbance and damage could be measured with regard to a supposed norm. Catherine and Raphael Larrère demonstrate the convergence between contemporary concept of ecosystem and historical processes understood

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9 Wolff 2008.

10 Nancy and Lacoue-Labarthe 1975.

11 See the fascinating story told about the changes that occurred to the concept of ecosystem during the twentieth century, from its idealist beginnings to its contemporary form in Catherine and Raphael Larrère 1997.

as dynamic but ultimately contingent and irredeemably multi-factorial.

But what are the positive consequences of the metaphysical critique of unity, substantiality and systematicity for our problematic of nature and civil society? Does the refusal of the illusion of independence entail our embrace of a fusion between society and nature in some all-enveloping naturalism? Should all social processes be understood as fundamentally determined by nature, via, for example, evolutionary psychology, evolutionary anthropology, behavioural ecology or evolutionary economics? Aldo Leopold, after all, claimed the development of environmental ethics was the result of an evolutionary process. In the *Electronic Revolution*, William Burroughs claimed that humanity was itself a plague, a virus, that had attacked the vocal cords of a race of apes. It has certainly been quite tempting for many commentators on the Covid-19 crisis to develop an image of human society as blindly and permanently immersed in nature, like a weak current in the ocean, wherein nature is understood as either external necessity, or endless empirical contingency; with new models of the statistical development of waves of Covid infections being generated each day to be tossed on the garbage heap two weeks later when the data changes or new conditions and factors of transmission emerge. But to refuse the independence of civil society from nature does not necessarily entail the theoretical option of identity or fusion or complete dependency of the two. Indeed this vision of society's immersion in unmeasured but implacable natural processes is to be rejected as one more psycho-social pathology: a kind of 'eco-anxiety' in which we, as social actors, become the objects of a natural drive and have no proper place.

6) A thick concept of society: socio-natural 'ropes'

To refuse the illusion of independence is not to reject wholesale any separation of natural and social processes, nor to deny their difference. A whole range of theoretical options are open to us when we try to model the interactions between society and nature – but what should our guidelines be in such investigations? Let's return to our criteria for a 'thick concept of society' – given that Hegel is reputed to have invented just such a concept. We stipulated that it must account for society's history, for regional groups, and for relationships between subjects in different groups. Hegel identifies the regional groups of society – estates and corporations – and he develops an account of their genesis and operation, and this is already a significant step beyond, for example, Kant's account of society. He examines how individuals can assume, in a non-alienated manner, their social roles such that they freely relate to each other within society as professionals, as members of institutions or associations, with all the attendant rights and responsibilities. Whether

or not Hegel has an account of the history of civil society is a trickier question. There is certainly a developmental scale upon which different states are placed in the 'universal history' at the end of the *Philosophy of Right*. Moreover, it is the case that Hegel repeatedly remarks that modern civil society is governed by the principle of individual freedom, so one could draw up a history of a civil society according to the progress, or the concretization, within institutions and social practices, of this principle. The remit of the police is potentially infinite given all of the unintended consequences of social actions, so one could also draw up a history of the evolution of the police and regulation within a society. But neither the relationship of the system of needs to what counts as 'nature', nor the existence and relationship of three distinct estates, is subject to change. Yet the most glaring omission in Hegel's account of civil society is his failure to recognize the widespread existence and operation of what we can clumsily term 'socio-natural' groups; that is to say, those regions of civil society that exist due to the intrication, the intertwining of natural and artificial processes. There is of course, a significant exception to this omission, and it lies in Hegel's description of the first 'substantial' estate as mentioned earlier. The estate of agriculture senses its own dependency upon nature's gifts, its fortunes closely tied to the relative unpredictability of rainfall, sunshine, temperatures, and hail. He writes:

This first estate will always retain the patriarchal way of life and the substantial disposition associated with it. The human being reacts here with immediate feeling as he accepts what he receives; he thanks God for it and lives in faith and confidence that this goodness will continue. What he receives is enough for him; he uses it up for it will be replenished. This is a simple disposition which is not concerned with the acquisition of wealth...In this estate, the main part is played by nature, and human industry is subordinate to it. (Addition §203)

This remark is placed as an immediate caveat or qualifier on a strikingly prescient historical observation wherein Hegel notes "In our times, the [agricultural] economy, too, is run in a reflective manner, like a factory, and it accordingly takes on a character like that of the second estate and opposed to its own character of naturalness". History, of course, has proven the first estate quite incapable of retaining any substantial disposition in the face of the continuing industrialization of agriculture. Nowadays, artificial meat is grown in laboratories, and intellectual property law – nicely explored in the *Philosophy of Right* – prevents farmers from storing unused seeds from one year to the next. However, the contrast between Hegel's observation and his caveat neatly expresses what I mean by a socio-natural 'group' or 'rope'. Within the 'substantial disposition' of pre-industrial farming, there is a felt

recognition of the interweaving of soil fertility, the sturdiness of certain species of crops, sunlight and rainfall, temperatures, insect populations, irrigation and natural fertilizers with the eventual yield, harvest and market prices. That interdependency is gradually analyzed, measured, eventually modified and rendered more efficient as a productive process through the industrialization of agriculture. This industrialization not only reduces the felt dependency on nature, but also ensures that nature is no longer experienced as a gift from God to be received, but more a resource to be controlled or extracted. Nevertheless, the interweaving of crop yields with partly natural processes remains, however much artificial manipulation has occurred through genetically modified seeds, for instance. Crops still fail due to weather. Soils become exhausted despite and sometimes due to the overuse of artificial fertilizer. Olive trees in monocultural plantations become excessively vulnerable to certain bacteria. The devastated olive-oil industry of Puglia, Italy, presents a socio-natural rope, in that it consists of social and natural strands that are woven and bound together over time. The term 'rope' is better than 'group' because it highlights the constitutive process of weaving, of knotted strands. It also gives an idea of the inertia of these socio-natural processes: the strands cannot be simply separated or pulled apart because they are tied together. Furthermore, the term 'rope' also conveys the long histories of these socio-natural processes. The particular history of the Puglia olive oil rope, for instance, little to do with Hegel's progress of the principle of individual freedom. One of the characteristics of industrialized agriculture is this coupling between a drive to control and manipulate natural processes and an all-enveloping and ultimately unpredictable dependency on natural materials.

Another socio-natural rope that Hegel already implicitly recognizes is the family, especially in its extended form across generations. The family is the realm of "immediate or natural ethical spirit", which, as we would now argue – against Hegel's patriarchal division of labour between two supposedly 'natural' sexes – is socialized into various norms and forms (§157). Of course, in the *Philosophy of Right* civil society emerges precisely at the moment that the family dissolves, through children leaving home and creating their own households (§181). But the family is also the source and ground of civil society in as much as those children once grown up go on to create their own households, their own couples, families and recomposed families within which they consume the goods traded for within the system of needs. If we were to take a step beyond Hegel, and understand families as socio-natural ropes, we would need to take into account not only extended families over several generations and their close friends, but particular genetic mutations and inherited vulnerabilities to certain diseases as compounded with repeated lifestyle choices and habitats. If generations of a family persist in living in one of the richest but most polluted cities in Europe, then they will need to be

nimble enough within the system of needs to be able to afford private health insurance to afford the higher-than-normal frequency of cancers that will invade their lymph systems. That is a socio-natural grouping, an alliance of pollutants and certain human bodies that due to a shared genetic inheritance have a tendency to stock and accumulate those pollutants to dangerous levels, whilst a few other people living in the same town live for over a hundred years.

But Hegel only partially anticipates the full concept of socio-natural ropes that we need to develop in order to extricate ourselves from our contemporary predicament. Hegel still separates his philosophy of right from his philosophy of nature. It is difficult to find his articulation of society and nature within his philosophy of nature, and it is difficult to recognize nature within his philosophy of right. But in order to take a few steps beyond Hegel we can use some of tools and indicators that Hegel himself provides, specifically in moving beyond the system / environment dichotomy. They are not entirely adequate to the task, but they point the way.

7) Tools in Hegel for thinking socio-natural ropes

The first helpful move Hegel makes in his *Philosophy of Nature* is to show how fertile land, vegetation and animals develop through quite specific and determinate processes that imply not only their entire lifecycle but also all that they presuppose in terms of their location, orientation in time and space, and chemical process. This counters the system of needs' image of the natural thing as empty of determinations and without its own end. Each natural thing has a complicated and dynamic set of determinations, not least its involvement in a myriad of processes which are damaged when it is possessed, used and manipulated as a single 'thing'. As noted earlier, these determinations of natural things are already recognized and utilized in a limited manner as fixed 'properties' in human manufacturing processes, wherein one type of wood is chosen for floorboards, and another for constructing walls and rooves (§§56, 196). Again, from the perspective of property however, these determinations are mere means for the satisfaction of my ends, they do not constitute a self-sufficient internal dynamic. With regard to how farming and manufacture appropriate materials Hegel says:

To give form to something is the mode of taking possession that is most in keeping with the Idea... We must also include here the giving of form to the organic. The effects which I have on the latter do not remain merely external, but are assimilated by it, as in the tilling of the soil, the cultivation of plants and the domestication of animals. (§56)

However, if we take animals from the perspective of Hegel's *Philosophy of Nature*, despite their domestication they still have their own internal dynamic: the three organic systems of the nerves, the circulation of the blood, and digestion, continue to operate (PN, §354). Hegel hence recognizes two quite different dynamics: one concerning the unfolding of the Notion within the animal organism, and the other concerning the unfolding of the Idea of right in property. Of course, he does subordinate nature to right through the action of humans taking possession of things. But at least some of the pieces are in place for constructing an alternative concept of the interaction of two different forms of efficacy within a socio-natural rope; moreover, without either of them decisively dominating the other. In other words, we can imagine how a natural process – say a domesticated animal's digestive process – is altered by a manufacturing technique – cheap alimentation, growth hormones – and continues to operate, but in a way, and with consequences, that were not anticipated by those designing, selling or using this manufacturing technique – mad cow disease in England.¹² I call this study of the interaction of different forms of efficacy 'metabolics'. It is a new area of enquiry designed to take us beyond simplistic models of domination and resistance.

The second helpful contribution made by Hegel is his conceptual accommodation of both pollution and the imprudent depletion of natural resources. In his outline of the role of the police in regulating civil society and the system of needs, Hegel points out that all individual actions have consequences that stretch well beyond the agent's intentions or maxim or reasonable expectations (§232). Private actions that may be rightful according to the stipulations of the law, necessarily enter into a sphere of external and contingent relations with other people and public arrangements. As such they may end up by doing harm to other people (§232). The pollution caused by law-abiding manufacturing processes falls neatly into this category. Hence when Hegel states that the role of the police is to intervene within the system of needs so as to ensure 'arrangements of public utility', to regulate the relationship of people's differing needs, to exercise oversight and secure provisions in advance, he is outlining a sphere in which we could include what is now called 'environmental regulation'. Furthermore, just after he awards human beings the right to possess and own and use anything whatsoever on the grounds that it does not possess a self, he immediately places a limit on this right by recognizing that use can be "based on a continuing need and entails the repeated use of a self-renewing product – perhaps even limiting itself with a regard to safeguarding that renewal" (§§44, 59-60). Hegel thus guards against the arbitrary depletion of stocks or exhaustion of resources.

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 12 As I write China has banned beef imports from England. I lay sacrifices to the goddess of Irony.

Hegel opens up a path here but we need to take a step further than this accommodation of pollution and resource-depletion as side-effects of the system of needs, side-effects that can be simply regulated or managed. Pollution is typically understood to concern the unintended environmental impact of by-products and waste-products of production and consumption processes. What is at stake in the concept of socio-natural groups is not just 'externalities', such as by-products of manufacturing, but the entirety of a production process, including all its intended effects, as a modification of related social and natural processes. It is the seen and recognized body of a social practice, not just its waste or byproducts, that is already itself a chemical process that modifies, facilitates or disallows other neighbouring processes. In the *Philosophy of Nature*, Hegel notes that "the living body is always on the point of passing over into the chemical process: oxygen, hydrogen, salt are always about to appear, but are always again sublated; and only at death or in disease is the chemical process able to prevail" (§337).¹³ This passage into the chemical process is continually occurring in any social practice at the level of the material objects and the transformations that take place throughout their lifecycle. In other words, our guts tell a long story about our farms.

8) Conclusion

In the opening section of this paper we stipulated three criteria for a properly 'thick' concept of society: it must account for the contingent history of that society, it must account for the different operations of regional groups within that society, and it must explain how individuals from different groups relate to each other. Evidently we have not produced such a thick concept of society through our critical interpretation of Hegel's model of the system of needs. What we have done, however, is add a fourth criteria. A thick concept of society must identify its regional groupings not simply in terms of the established sociological categories drawn from the names of faculties in a university campus: law, economics, medicine, etcetera. Rather, the regions of society should be understood as individuated via the intertwining or coupling of natural and social processes, such as the energy industry's disruptions and re-routings of the carbon cycle, and agriculture's interventions into the nitrogen cycle.

Let's return to Hegel's unfortunate and not-so-dialectical borrowing from political economy: the notion of the system of needs. What lies at the very base of the effacement of nature in the system of needs but the question of needs, or rather, their spiritualization in Hegel's terms. A renaturing of our social groups, in line with a properly thick account

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¹³ Hegel 1970, p.273.

of civil society, would require us to pay more attention to how we collectively perceive, recognize and report on our needs. It is no longer the necessities versus luxuries framework that is essential. Industrial capitalism has been established for two centuries and the early political economists' apology for luxury is outdated. The framework which is now crucial, in the age of ecological disaster and runaway climate change, is that of differing temporalities: what do we perceive to be our needs across the years and across the generations, and how do we remark those needs? When I was writing this paper I spoke about it to Ron Gass, a renowned sociologist who worked for the OECD and now, as he nears his own century, is rewriting Kant's "Idea for a Universal History". He said people need work and money before they care for nature. But before work people need fresh air and water, and their bodies to stay upright.

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