

NICOLAI HARTMANN'S PHILOSOPHY OF NATURE: REALIST ONTOLOGY AND PHILOSOPHICAL ANTHROPOLOGY

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Abstract: One significant thinker who developed a philosophy of nature that is both realist and inherently pluralistic is the long-neglected 20th century German philosopher Nicolai Hartmann. His nature philosophy is grounded in his "critical ontology" and theory of the "stratified" structure of the real world. This structure reveals the particular place of the human being in the world, from which humans engage in the natural and historical process of learning about the world, socially and scientifically. This view challenges many currently held relativist and post-Kantian epistemologies of the sciences. The point of departure for Hartmann's philosophy of nature in his ontology and philosophical anthropology is discussed, and the issues of realism and the growth of knowledge in history are brought into relation with some reflections of Miguel Espinoza on these themes.

Keywords: Nicolai Hartmann, Ontology, Philosophical Anthropology, Philosophy of Nature, Cognition, Strata, Stratification, Categories, Realism, Miguel Espinoza.

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§ 1.— Who is Nicolai Hartmann?

In his 1930 survey of German philosophy, the young Deweyan-Marxist Sidney Hook claimed that Hartmann was "interesting without being oracular, instructive without pedantry, and profound without being obscure," and "a thinker who will soon be greeted as Germany's leading philosopher." While it is true that Hartmann was highly regarded during his lifetime, Hook's prediction was never realized, as Hartmann's impressive work was soon eclipsed by that of his younger contemporary, Martin Heidegger. Hartmann was of Baltic German descent and an independent thinker who decisively struck out on his own as he repudiated the neo-Kantianism of his former teachers Hermann Cohen and Paul Natorp in Marburg. The fact that he wrote enormous systematic works with an almost analytical style and a thorough familiarity with the history of philosophy made him not easily classifiable. While he appreciated and appropriated aspects of the phenomenological approach of the early Edmund Husserl and the Munich circle, phenomenology remained for him one important method for philosophy among others, and most definitely not a philosophy that was complete in itself.² Although he admired Max Scheler's development of a "material value ethics" and his metaphysical vision, he refused to accept any metaphysics that he saw as basically teleological in orientation, and he held controversially that ethics had to be atheistic.3 While he respected the techniques and findings of historicists like Wilhelm Dilthey, he refused to accept the relativism that they often imply, and instead upheld the notion of the gradual historical growth of human knowledge.4 A relatively conservative bourgeois intellectual of the Weimar republic in the period of his early output, like many of his generation he looked with dismay on the rapidly industrializing, culture-destroying capitalist society of the day. The fact that on the eve of WWII this well-known professor at the University of Berlin refused to begin his seminars with the mandated "Heil Hitler" is testimony to the fact

¹ "A Personal Impression of Contemporary German Philosophy," *Journal of Philosophy* 27, 6 (1930): 156-57.

² For one of his brief assessments of phenomenology, see *Der Aufbau der realen Welt* (Berlin: De Gruyter, 1940) 535 note, and 536-37. Hereafter 'A' followed by page number. All translations of Hartmann are my own, with the exception of passages from *New Ways of Ontology*, trans. Kuhn (Chicago: Henry Regnery, 1952), abbreviated NW.

³ For his extension and critique of Scheler's ethics, see *Ethics*, trans. Coit, 3 Vols. (London: Allen & Unwin, 1932).

⁴ See A 17-31. See also section 5 below.

that he didn't think much of "the inner truth and greatness" of National Socialism as a solution to this cultural crisis.⁵

While he wrote at length and with originality on epistemology, ethics, aesthetics, philosophy of history, nature, and many other topics, Hartmann's central preoccupation was ontology. Hartmann deliberately called his approach a "critical ontology," in contrast with existing "critical realism," phenomenological idealisms, inductive metaphysics, and positivist materialism. There are at least three reasons for calling the ontological stance developed by Hartmann "critical." First, "critical" means affirming the Kantian lesson that we cannot dogmatically take thought's relation to reality for granted. Although we apparently possess some a priori knowledge, according to Hartmann, the world is not necessarily completely intelligible to us and thought may not reach the nature of things at all. Critical ontology, in this sense, can be distinguished from dogmatic metaphysics or ontology, and defines its stance "this side" of all metaphysical "standpoints" (including classical realism and contemporary forms of idealism). Secondly, Hartmann holds that Kant's critique was not critical enough of the historically transmitted presuppositions implicit in it. A more radical excavation and critique of these presuppositions is required. "We have to take up the task of a new and more radical critique—not only of 'pure reason' insofar as it harbors the a priori presuppositions of positive science—but a critique of the categorial formation of our ontological consciousness and overall consciousness of the world."6 The third sense of critique goes to the core of Hartmann's ontology and attaches to his self-conscious retention of the term "category" to designate ontological principles. The term "category" should remind us that the concept of an ontological principle and the principle itself are not identical, and its use affirms that we often cannot decide in advance whether the content of the category belongs to our understanding or to the

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⁵ This anecdote comes from Predrag Cicovacki, "Nicolai Hartmann: A Forgotten Giant, Part II" *Diotima* 3, 1 (2002): 3. For one view of Hartmann's relation to National Socialism, see Hans Sluga, *Heidegger's Crisis* (Cambridge: Harvard UP, 1993). For another, see Wolfgang Harich, *Nicolai Hartmann: Gröβe und Grenzen* (Würzburg: Königshausen & Neumann, 2004). Compare Rehberg's discussion of Gehlen's relation to National Socialism in his "Introduction" to the English translation of Gehlen's influential work *Man: His Nature and Place in the World*, trans. McMillan and Pillemer (New York: Columbia UP, 1988 [1940]), ix-xxxvi. The phrase "inner truth and greatness" comes from Heidegger's 1935 *Introduction to Metaphysics*.

⁶ A 64. More than the usual number of quoted passages are presented in the following essay because Hartmann's position is so little known, and because so few of his works have been translated into English.

world. It implies that this choice is itself the product of a dualistic standpoint that cannot be accepted uncritically. Critical ontology is interested in the conditions under which "subjects" know "objects" (among other things), but does not construe these conditions as being enclosed within the skins or minds of subjects. While it is true that "substantive" conditions of reality (ontological principles) cannot be disclosed without the formal conditions of experience (cognitive principles), the latter do not provide the ontological content for the former. Critical ontology begins "this side" of the idealism-realism debate, and aims to grasp substantive structures of all kinds, while the question of their origin initially remains secondary. Provided we remain critically aware of the difference between concept and principle, we need not be constantly reminded of it in our pursuit of ontological structures. Categories thus provide both the substantive content as well as the "critical" element of Hartmann's ontology.

§ 2.— The Current Problematic

In "Is Reality Veiled?" Miguel Espinoza addresses a prevalent conceptual and often polemical conflict, in philosophy of science and outside of it, between scientific realism and various forms of post-Kantianism, including instrumentalism, pragmatism, positivism, and constructivism. In characterizing the latter as forms of idealism, and the former as incomplete or "truncated" realism, he attempts to establish a broader philosophy of nature or metaphysical realism that would not endorse either extreme but preserve what is valuable in both. His approach shares some significant similarities with the philosophy of Hartmann, who was one of the few German philosophers of the time period to repudiate the various forms of neo-Kantian idealism, and to create a type of realist ontology. Hartmann viewed the epistemological obsessions of the neo-Kantians and others as highly sophisticated means to obscure or

⁷ Compare Ray Brassier, "Concepts and Objects," in *The Speculative Turn*, L. Bryant, N. Srnicek, and G. Harman, eds. (Re-Press, 2011) 63. For more discussion of this and related points, see section 4 below.

⁸ A 14.

⁹ "Is Reality Veiled?" ("Le réel, est-il voilé?", English version, extracted from *Théorie de l'Intelligibilité*, 2nd ed., Ellipses, Paris, 1998), subsequently IRV; "Scientific Realism: A Truncated Metaphysics" ("Le réalisme scientifique: une métaphysique tronquée," *Archives de Philosophie*, 57: 325-340 [1994]), abbreviated SR.

deny the fact that, properly understood, cognition reaches out to something existing independently of itself. Especially in his later work (1940-1950), he engages with historicism, pragmatism, and relativism, rejects their idealistic assumptions, and appeals to a realist philosophical anthropology and ontology in order to redefine the place of the human being, and the nature of knowledge, in the natural and social world. On this basis he also develops ideas about the historical growth of our knowledge of the world, and the history of scientific and ontological categories. Hartmann articulates a "critical ontology" that aims to dissolve the dualistic tension between naïve scientific realism and idealist or correlativist constructivism. With it he is able to account for both historical categorial change and categorial stability in human investigations into and characterizations of the natural and social world.

In his 1949 "Knowledge in the Light of Ontology," Hartmann presents his case that any epistemology that does not take into account the "anthropological" situation of human being in the world (and for him this means the "ontological" situation), is hopelessly ungrounded. 10 Philosophical anthropology in Germany in the early 20th century was a discourse that aimed to carefully steer a course between reductive naturalistic and idealist interpretations of the human. In the "light of ontology," Hartmann believes we must reject the "abstractions" of formal epistemology and aim to place cognition "once more within the circle of human existence, personal as well as collective historical existence."11 He considers cognition to be a process that is itself "a component of the greater process of spiritual life in history, and this is essentially determined by the progressive orientation of humans in the world."12 "Orientation" is a central anthropological category for Hartmann and organizes his recasting of human cognitive relations in the world. Orientation entails participation in a surrounding real world, human embodiment, and ecological embeddedness in environmental and social relations. It is a form of "adaptation" to surroundings, but he insists that this should not be interpreted in a narrow biological sense. Human beings not only orient themselves within a natural world that preexisted them, but in a socio-cultural world whose institutional and symbolic forms also constitute furniture with which they have to cope and come to terms. Orientation is thus in part receptive response to existing

¹⁰ "Erkenntnis im Lichte der Ontologie" (hereafter ELO), in *Kleinere Schriften* I (Berlin: De Gruyter, 1955), 122-180. I often substitute simply "anthropology" or "anthropological" for the more cumbersome "philosophical anthropology."

¹¹ ELO 174.

¹² Ibid., my emphasis.

structures, natural and cultural, and in part an active coping and creative process. Human orientation in the world is itself understood to be a real, i.e., unique and unrepeatable, ongoing historical and social process of growth and enhancement of learning. Cognition, whose tools are "categories," is a major part of this historical process of orientation. Knowing or learning is always an approximative process involving labor in the world, and this labor entails that the products reflexively impact us as well as the world. It is this "feedback loop" that sustains the process and allows a growth of knowledge or learning. It is on the basis of this anthropological interpretation of knowing that Hartmann opposes all forms of idealism (neo-Kantian, phenomenological) and crypto-idealism (pragmatism, historicism, relativism, existentialism) with a realist, pluralistic ontology that is ample enough to embrace the diversity of beings, including physical, biological, psychological, socio-cultural, and ideal, while at the same time remaining materialistically grounded in the real world.

Given this anthropological turn, it may seem as if the prospects for "philosophy of nature," usually vaguely construed as a universal metaphysics to be placed in contrast with the materialist metaphysics of the sciences, would not be promising, given the "perspectival" or historically and culturally sensitive stance necessarily implicated in the anthropological view. Whatever definition of "philosophy of nature" we adopt, however, we will see that ontology does not become obsolete once the genuine discovery of human situatedness by pragmatists, historicists, and others has occurred. Contrary to popular belief, we do not end up with an irresolvable conflict between constructivists and realists, the "manifest image" and the "scientific image," sociology of science and scientism. The implicit metaphysics that frames these interpretive dualistic choices is itself a relic of Modern philosophy that we cannot

¹³ Hartmann never uses the term "perspectival," and my guess is that he would be wary of it. I borrow the term from Bertalanffy, whose "systems epistemology" draws directly from Hartmann, though modifying it in important ways. Another related expression, "standpoint," is for Hartmann always a derogatory and negative term. Having a standpoint, whether idealist, materialist, teleological, etc., roughly means having a "dogmatic commitment to unwarranted or ideological assumptions" that inevitably prevent one's sensitive phenomenological description of realities. This is a devastating obstacle to learning, because if one cannot describe accurately (phenomenology) then one cannot state problems clearly (aporetics), and then one cannot hope to explain or resolve them (theory). "Standpoints" rush straight to "theory" and only carelessly pass through the stages of description and problem-statement. This meaning of "standpoint" has nothing in common with that of contemporary "standpoint epistemology" (with which I believe Hartmann is implicitly, though partially, in sympathy).

afford to unwittingly preserve. Taking up an "anthropo-ontological stance" simply entails the recognition that the human process of learning about the world has to be seen as a gradual, collective, and social process of revealing the (relatively) invariable (categorial) structure of the world that is described in the variable conceptual frameworks that have been historically developed to explain it. This is the perspective from which to view Hartmann's own *Philosophy of Nature*. It is not meant to be a new finished metaphysical product, but is itself a process of learning that studies the fundamental principles of the natural world.

Hartmann's *Philosophy of Nature* (completed in 1943, but not published until 1950), the fourth volume of his ontology, is a "sketch of the theory of special categories," conceived as a supplement to the "outline of a general category theory" presented in the previous volume, The Structure of the Real World (1940).14 The special categories include "dimensional" (e.g., space, time), "cosmological" (e.g., becoming, duration, process, cause, natural lawfulness, dynamic systems, equilibrium), and "organological" (e.g., organic systems, self-regulation, species, variability, purposiveness, selection, organic nexus) categories, and others discovered and employed in philosophical and scientific accounts of the natural world. Hartmann claims at the start that the task of the *Philosophy of Nature* is not to solve problems that the sciences cannot solve, nor to present a metaphysics that approaches problems with its own special methods independently of the sciences, as if it could reach "better" solutions. He wisely thinks that the era for those ambitions is over. Its prospects are more modest. Proceeding on the basis of what the sciences have already achieved, but not simply settling for their "results," it produces "a theory of categories which takes up the unexamined implicit fundamental principles (Grundlagen)" of the sciences. Philosophy of nature is, therefore, not an epistemology of the sciences, it is an ontological analysis of the principles taken to be operative in the real world. It is *Grundlagenforschung*, research into principles.¹⁵

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¹⁴ *Die Philosophie der Natur: Abriss der speziellen Kategorienlehre* (Berlin: De Gruyter, 1950) vii. Hereafter 'PN' followed by page number.

¹⁵ In a late review of the book, the young Paul Feyerabend claims that the aim of any philosophy of nature should be "fruitfulness." It should be an account that both "explains available facts but also prepares for the future; which makes old ideas comprehensible and gives them content while, at the same time, providing the impetus for the development of new theories," or that also "create[s] ideas which are necessary for the re-fashioning" of experience. ("Professor Hartmann's Philosophy of Nature," *Ratio* 5: 91-106 (1963), 92.) On this count Hartmann falls short in his view. "The task which the author sets for himself is not the enlargement or the

Rather than explore his intriguing detailed analyses of the special categories or principles in his philosophy of nature at any depth, however, this essay will argue in a very preliminary way that Hartmann's approach to nature philosophy (suitably modified) can be a productive one for thinking about contemporary philosophy of science, science studies, and particularly ecology and environmentalism. As I do so I will highlight similarities with Espinoza's views on two issues, 1) his argument that growth of knowledge is (at least part of) a refutation of the sort of relativism shared by many constructivists, and 2) that a more robust realist ontology must be introduced to render the natural world intelligible. Hartmann makes very similar arguments throughout his career. In his later work, he would perhaps go further than Espinoza to argue that any sort of epistemology of science not only has to embrace a more complete realism, 3) this realism must in turn be based in an adequate philosophical anthropology and understanding of "the place of the human in nature." ¹⁶ These issues

transformation of the (categorially usable) stock of the sciences, but only its comprehension. Thus we have here an unfruitful philosophy of nature which quite expressly refuses to contribute to the enhancement of our knowledge of the world" (ibid.). This is an unfair assessment, first, because what "enhancement" means for the two thinkers is entirely different. Feyerabend has an explicitly pragmatistic bent, and measures "enhancement" on a scale of potential for innovation or transformation of future experience. Hartmann would recognize this as one possible epistemic value, but not the only one, and might measure "enhancement" on a scale of depth, comprehensiveness, penetration, or greater approximation to certainty. There is no reason why, once we consider these to be possible epistemic values or virtues, all cannot be pursued (even if prioritizing in cases of conflict becomes necessary). Secondly, it is unfair because Feyerabend himself later notes that Hartmann does make fruitful contributions, and claims that Hartmann has produced a "consistent philosophy of process" that goes beyond a mere analysis of categories. I would add that Hartmann's discussion of the "organic nexus" at the end of PN, as just one of many such examples, is an original attempt to synthesize the available knowledge of the life sciences and to give a complex account of the categorial aspects of morphogenesis, which resonates with contemporary attempts in "developmental systems theory" to downplay the role of genes in development and see the "ontological parity" of the many factors contributing to the process. On the "nexus organicus," see PN 687-703. On DST, P. Griffiths and R. Gray, "Developmental Systems and Evolutionary Explanation," The Journal of Philosophy 91, 6 (1994): 277-304; Susan Oyama, The Ontogeny of Information: Developmental Systems and Evolution, Second Edition (Duke University Press, 2000).

¹⁶ This problematic was central to the thought of the main German philosophical anthropologists of the early 20th century. I have made a start at articulating the relevance of this problematic, with special reference to Marjorie Grene (who derives much from Helmuth Plessner's thought), in "All That We Are: Philosophical Anthropology and Ecophilosophy," *Cosmos and History: The Journal of Natural and Social Philosophy*, 6 1 (2010): 60-82. I have also

of realism and historical change or growth of knowledge will be taken up in sections 5 and 6.

§ 3.— Critical Ontology and the Structure of the Real World

For Hartmann, the notion that the aim of philosophical inquiry is to explain phenomena in terms of a single set of simple and self-evident categories is a rationalist prejudice that he dubs the "rationalist error." Other typical errors of ontologists include the mistake of radically separating the principles of things from concreta ("chorismos"), of attempting to unify them under a single highest term ("categorial monism"), the Kantian mistake of believing that the principles of things are located exclusively within the skins or minds of cognizing subjects ("Kantian error"), and perhaps above all others, the error of Grenzüberschreitung, the illegitimate boundarycrossing application of a category from one domain to another where it is not appropriate or explanatory. I have discussed his treatment of these errors elsewhere. 17 Here I will provide a rough sketch of the way his conception of a "category" responds to these errors and forms the point of departure for a new ontology. Then I will briefly discuss his theory of stratification and the "categorial laws," and in the next sections will take up the question of his realism and approach to the historical growth of knowledge (through category theory and his philosophical anthropology). I'll end with some comments on the fruitfulness of his ontology and philosophical anthropology for a "philosophy of nature" that incorporates a critique of prevalent dualisms, and provides an ontology of the social and the natural world relevant for the work of science studies theorists and environmental philosophers alike.

discussed Scheler's anthropology in "Bringing Values Down to Earth: Max Scheler and Environmental Philosophy," *Appraisal: The Journal of the Society for Post-Critical and Personalist Studies, Re-Appraisal: Max Scheler* (Pt 2), Vol. 8, No. 4, October 2011. Hartmann places Arnold Gehlen's anthropology into the framework of his own stratified ontology, as I'll point out below. All of these provide rich resources for contemporary thinkers.

¹⁷ There is a series of eleven such major errors of the "old ontology" thoroughly explored and criticized by Hartmann in his early piece "How is Critical Ontology Possible?" trans. Peterson, *Axiomathes*, DOI 10.1007/s10516-012-9183-2 (abbreviated HCOP). I have introduced Hartmann's ontology in the accompanying essay "An Introduction to Nicolai Hartmann's Critical Ontology," *Axiomathes*, DOI 10.1007/s10516-012-9184-1 ("Introduction"). The same treatment of errors is taken up and slightly expanded in Hartmann's *Aufbau*, 61-156.

Hartmann claims that every philosopher who tries to explain the nature of things does so in terms of categories. Heidegger, Deleuze, Whitehead, and other ontologists all use categories to characterize the structures of reality, but Hartmann differs from them in that he has *explicitly* developed his ontology *as a theory of categories*, and has created one of the most elaborate such theories ever conceived. Categories are "fundamental assertions about being as such." ¹⁸ "Categories are simply the tacit presuppositions which we make in our conception, interpretation, and judgment about the given." ¹⁹ At the same time, we cannot be sure whether our categories reveal more about ourselves than about the world—that is, we must distinguish between cognitive and ontological categories—but this does *not* justify complete relativism about categories because most categorial distinctions do reveal something substantive about the world.

With categories we are not concerned with the question of the *Dasein* of what is, but with the side of its *Sosein*. This means that we are not concerned with the ways of being of what is [i.e., ideal or real]—for these are the ways of *Dasein*—but with configuration, structure, and content. Categories are substantive principles, and therefore *it makes no fundamental difference for them whether in their origin they are to be understood as self-existent ontological principles or as principles of the understanding. This difference is the most important that can be imagined for the ontological character of the real world, <i>but not in terms of its substantive structure*.²⁰

¹⁸ NW 13.

¹⁹ Hartmann, "Ziele und Wege der Kategorialanalyse", Zeitschrift für philosophische Forschung, vol. 2, no. 4, 1948, 499-536; 500-501.

²⁰ My emphasis, A 14. *Dasein* means "existence" for Hartmann, "that something is at all." (He *deliberately* uses the term in a more traditional way in contrast to Heidegger's idiosyncratic usage.) The "ways of being" [Seinsweise] are two: ideal being and real being, and he also calls them the two "primary spheres" of being. (The "secondary spheres" include those of logic, cognition [or knowledge], and thinking.) The two primary spheres are distinguishable principally through their different 'modalities' of being, which Hartmann exhaustively investigates in his *Möglichkeit und Wirklichkeit* (Berlin: De Gruyter, 1938). *Sosein* has been translated by some as "specific character," and indicates the "what" of something. He glosses it here with "configuration, structure, and content." It is important to note that he does not use *Sosein* as a synonym for "essence," "form," or "nature" in any traditional sense. It should also be noted that *Sosein* is not merely ideal while *Dasein* is real being, for ideal and real concreta each have a *Dasein* and *Sosein* of their own. Contemporaries like Meinong and Scheler also used the term *Sosein*, but each with their own meaning. For Hartmann's thorough discussion of *Sosein* and *Dasein*, see *Zur Grundlegung der Ontologie* (Berlin: De Gruyter, 1934), hereafter GO, 81-138. I leave both terms untranslated here.

This "substantive structure" is precisely what the historical and ongoing discourse of ontology (and of the sciences) aims to describe and understand. The distinction between cognitive and ontological categories and the complex relations between these "ways of seeing" (*Sehweise*) and the ontological (natural and social) conditions of that very "seeing" will be discussed below. At the very least it implies that the process of using and disclosing ontological categories is historical, unending, and contestable. According to Hartmann the world has a structure, and this structure is revealed by the investigation of the principles determining the concreta in it, the categories. There are two major types of categories, including 1) "fundamental" or general categories, which can be discovered throughout the world, and 2) "special" categories, which condition existences from particular domains of the world. Fundamental categories include a) pairs of contraries, b) modal categories, and c) "categorial laws," and special categories pertain to a) physical-cosmological phenomena, b) organisms, c) mental life, and d) human ethical, socio-cultural, and historical life.²¹

Hartmann claims that critical ontology reveals the articulated structure of the real world, one far more complex than monistic or dualistic accounts present. ²² Hartmann was a generous thinker who aimed to embrace as many of the crucial insights of historical and contemporary philosophers and scientists as he could. Following Hegel he thought every position had something positive to contribute. This attitude led him to relentless criticism of views that aimed to *reduce* the multiplicity of diverse phenomena by explanations that use only a single set of categories. ²³ There is no single set of categories that may be used to describe all of the phenomena of the world, and even to articulate philosophical problems well we must draw the appropriate categories from the description of the phenomena themselves. Based on his extensive analyses, Hartmann claims that there are four "strata" in the world, corresponding to the major domains of phenomena, each possessing its own distinctive

²¹ The fundamental categories are examined in *Possibility and Actuality* (1938) and in *The Structure of the Real World* (1940), and the special categories in Hartmann's *Philosophy of Nature* (1950), his *Ethics* (1926), *The Problem of Spiritual Being: Investigations into the Foundation of the Philosophy of History and the Geisteswissenschaften* (1933), and other works.

²² The real world "has the unity of a system, but the system is a system of strata. The structure of the real world is a stratified structure" (A 182).

²³ See the discussion of *Grenzüberschreitung* in the author's "Introduction," section 4.2, and Hartmann's first clear statement of this principle in HCOP, section 3.3.

categorial structure. He develops a theory of second-order "strata laws" in order to characterize the relations between the different strata and their categories. I'll give a brief survey of the strata and these laws here.²⁴

There is a stratum of material or physical reality, including, for example, the categories of corporeality, space, time, process, condition, substance, causality, reciprocity, and dynamic structure and equilibrium. "Vital" or organic beings embody a peculiar organic structure defined in terms of adaptability, purposiveness, metabolism or self-regulation, self-restoration, reproductive fitness, hereditary constancy and variation, genome, niche, avatar, and ecosystem.²⁵ Thanks to the work of animal researchers it is widely recognized that many types of animals possess a mental life. This "psychic" or mental stratum includes awareness, unconscious processes, pleasure and pain, conditioned learning, habit, associative memory, communication, emotional response, problem-solving intelligence, and the categories of rigid social relations. While it is obvious that many animals are intelligent (such as ravens, dolphins, and nonhuman primates), it is less clear whether they have any capacity to reflect on their needs and desires in an evaluative way. Some have identified this capacity to strongly evaluate "first-order desires" (organic needs or inclinations) as one characteristic difference between nonhuman animals and human beings.²⁶ This capacity is closely bound up with human language, and articulating our motivations for action in a language of qualitative contrasts (or in terms of "objective" values) is primarily how we understand that action and ourselves in a moral sense. We can include the capacity to strongly evaluate in the stratum of "spiritual" capacities. These include the power of conceptual thought, knowledge acquisition, ideal relations, moral evaluation and values, symbolic communication (signification), teleological reasoning, personality, and all of the categories of the complex and variable social relationships evinced by humanity. Historical reality and culture form the immediate context or "world within a world" for a characteristically human existence. The terms material, vital, psychic, and spiritual name strata or domains of ontological categories. The claim of the categorial

²⁴ Again for more extensive discussion see A, NW, and my "Introduction."

²⁵ This can be further refined to a dual set of categories, one "genealogical" and one "economic," in order to better distinguish between the discursive regimes of molecular biology and ecology, where needed. See Eldredge, Niles, and Marjorie Grene, *Interactions: The Biological Context of Social Systems* (New York: Columbia University Press, 1992), *passim*.

²⁶ For instance, Charles Taylor, "What is Human Agency?", in *Philosophical Papers I: Human Agency and Language*, Cambridge, Cambridge UP, 1985, pp.15-44.

ontologist is that we cannot make sense of the concreta at each respective level unless we use categories such as those listed, for they are indispensable for understanding.

In response to the various ways of illegitimately crossing or disregarding boundaries between these categorial domains Hartmann develops a theory of secondorder categorial laws which regard the whole complex categorial structure of the real world as their concretum. The first two groups of (16 total) laws govern the internal relations between categories themselves within strata (laws of validity and coherence), and the second two pertain to relations between whole strata of categories (laws of stratification and dependence).²⁷ The last two sets are most important for grasping the stratified structure of the real world and for clearly delimiting the explanatory relevance of the categories pertaining to each stratum. In brief, according to these laws there is simultaneously a superiority of "strength" of the "lower" categories, as well as autonomy of the "higher" from the lower. Where lower categories occasionally "recur" in higher strata, they are invariably "modified" through their relations with other categories of the same stratum. In the structure of the world the "strength" of the lower strata is evident in the fact that the higher are always utterly dependent upon them. In our experience we find no culture that is not the culture of individual minds, no minds outside of organic bodies, and no organisms whose life processes do not involve chemical and energetic exchanges with the abiotic environment. This dependence of higher on lower does not entail the determination of the higher by the lower, according to Hartmann. Materialist explanations of life inevitably leave out the novel aspects of organic systems (e.g., metabolism) and fail to make them intelligible in their difference, just as psychologism's reduction of logical laws to psychological functions misses the distinctive character of logical norms. These errors of Grenzüberschreitung involve violations of categorial laws and relations. The way in which "materialist metaphysics [...] ascribes to the lowest ontological forms the power of producing the highest," ignores the "novelty" and "autonomy" of the higher ontological strata as well as the limitations of categorial "recurrence." 28 Materialism not only uses categories too poor in content to explain ontologically "higher" phenomena, but it also overestimates the basic categorial "law of strength." He also discusses in equally critical fashion the converse error that applies "spiritual" categories (such as purpose) to the whole of

²⁷ For further explanation of these laws in English see NW 73-98, and Peterson, "Introduction," section 4.2.

²⁸ NW 98.

reality in order to construct a teleological metaphysics, as did Hegel or Scheler.²⁹ The elaborate theory of second-order principles governing coherent strata of categories and their relationships of dependence and independence is one of Hartmann's chief contributions to ontology and his response to the many errors of *Grenzüberschreitung* that are strewn throughout philosophical and scientific explanations.³⁰

It should be amply clear by now that in discussing "categories" Hartmann is not taking the relativistic path. He interestingly bases his earlier developed categorial ontology in a realist philosophical anthropology inspired chiefly by Arnold Gehlen, and attempts to reconcile the variability of historical conceptual schemes with the invariability in the categorial structure of the world. I'll draw out some parallels with Espinoza's views on realism in what follows, as well as the more recent "speculative realist" critique of "correlationism" in philosophy. In section 6 I'll place these ideas in connection with his ideas on the growth of knowledge.

²⁹ For his most thorough critique of "teleologism," see *Teleologisches Denken* (Berlin: De Gruyter, 1966 [1944]).

³⁰ While it appears that Hartmann's theory of stratification may be relevant to current discussions of emergence and supervenience, this is only partly true. There is no simple or direct way to find in Hartmann any solution to the "problems" of emergence or supervenience, for many reasons. 1) One very clear reason is that he believes human beings are not designed to make everything about the world intelligible, and there is much in it-particularly the phenomena of genesis or emergence—that simply remains unintelligible to us, and may always remain so. 2) A second, more technical, reason is that emergence and supervenience relate directly to predicates of objects, while Hartmann's strata relations—though involving predicates (categories) of objects—involve second order relations between categories among themselves, rather than relations between predicates and objects. His stratified model is not that of a scalar or granular hierarchy of objects and their properties. 3) Another is that supervenience relations are often expressed in terms of parts and wholes (in a hierarchy of objects), where the whole has some property not possessed by the parts. This relation is simply ontically self-evident from Hartmann's perspective, and is accounted for in his "dynamical systems" theory. Ontologically speaking, the relation between principle (predicate) and concretum does not coincide with that between whole and part. The whole is just another concretum with its own principles, which may very well be different from those of the part, and which cannot be derived from the part's principles. In terms of his strata laws, he claims that individual categories are parts of a whole stratum of categories, and as parts they are determined by the whole as categories. This partwhole relation is of another order altogether from that examined by supervenience theorists.

§ 4.— Realism and the Critique of Correlationism

Espinoza's arguments on scientific realism and his opposition to various forms of idealism or correlationism resonate strongly with many of Hartmann's own arguments. Like Espinoza, Hartmann sees a continuity of disposition in the "natural attitude" toward the world, the sciences, and ontology.³¹ Secondly, they are both opposed to relativism, pragmatism, instrumentalism, and positivism, and for many of the same reasons. Espinoza argues that all of the former depend upon a theory of knowledge developed by the latter, which limits the real to that which is experienceable by human organisms.³² He claims that what is real cannot be viewed merely as the correlate of contingent human organs, intentionality, or ways of thinking, but has to be regarded as possessing a subject-independent reality. In "Is Reality Veiled?" he aims to undermine the general view shared by these positions that "reality is veiled by perception and language," or that human knowers can never in fact know

³¹ However, there is a clear difference over the meaning of "metaphysics" between them. Espinoza claims that "to explain is to show how the actual emerges from the virtual," or "at least in part to show how the actual emerges from the possible" (SR 9). For Hartmann, such a preoccupation with "emergence" may be in the interest of the sciences, but while both the sciences and ontology are directed toward objects, the former is concerned with genesis while the latter is primarily concerned with "structure" in the widest sense. Ontology does not have an interest in how the "things that are" came to be, but in the structures and structural relations among them as they exist. Explaining genesis has to employ categories that pick out the real world structures surrounding us whose genesis is in question. In this sense, science is indebted to ontology as prima philosophia, the account of "what is, insofar as it is." However, while ontology has no interest in genesis, it also depends upon the sciences in order to aid it in revealing new categories and expanding its range. Therefore, the difference between the sciences and metaphysics or ontology is not simply "one of level, aspect, or dimension" (SR 9), but very precisely one between the perspective on genesis and the perspective on structure, between attention to some limited aspects of concreta, and a larger concern for the principles of these concreta in their comprehensive interrelationships, and with the whole stratified structure of the world. Further, "to actualize in the intellect nature's intelligibility" (SR 2) does not require a commitment to genesis, since intelligibility may be achieved in different ways, and in service of different values. (It is unclear whether for Espinoza "actualizing nature's intelligibility in the intellect" is teleological in character. It has a certain teleological flavor, but my sense is that he would reject it. As for Hartmann, whether nature's intelligibility is actualized or not "in us" is utterly contingent, and most of the beings in nature are utterly indifferent to being made intelligible by us. Cf. ELO 139 on the "being for itself of the world," but not their being for the mind.)

"things-in-themselves." Espinoza criticizes relativism as a kind of idealism that holds we "construct" the world through concepts and language (experience). If there is no theory- or language-independent access to reality, the argument goes, then we cannot know reality in itself. This argument may be viewed as just another version of what was decades ago called the "ego-centric predicament." Hartmann also responded to it in his day, as do some contemporary thinkers under the heading of the "critique of correlationism."

Hartmann resisted the interpretation of knowledge as a "production" in consciousness and interpreted pragmatism, some forms of phenomenology, Vaihinger's "as if," and historicism as new forms of "correlativism" that took the object known to be *primarily* a correlate of the knowing subject. They all agree in holding that "we do not approach objects as they 'are,' and we are left with nothing of them other than shifting interpretations," and that "[o]ne is then no longer able to speak of a real entity that would exist independently of the subject."³⁶ There are two related issues here. One is the question of the "independence" of the thing known, the other is the difference between the interpretation, representation, or image of the object and the "thing itself." On the first question, the idealist might say that if one supposes that something still exists independently, beyond the representation or interpretation, then

IRV 1. He also writes that, paradoxically, empirical verificationism is contradictory to metaphysical realism, because its criterion for reality is what the sciences (i.e., human perception) say about reality, while the metaphysical realist says that reality is independent of and indifferent to what humans experience (SR 14). Hartmann also never tires of reiterating that reality is indifferent to knowers. It is important to keep in mind that he means this very precisely, and does not surreptitiously attribute to this indifferent reality the power of silencing debate or short-circuiting political life that so many in our tradition have attributed to "nature" (or to Science as direct representation of Nature). Hartmann most definitely does not think that "the facts speak for themselves." On these themes see Bruno Latour's *Politics of Nature: How to Bring the Sciences into Democracy* (trans. Porter, Cambridge: Harvard UP, 2004). Latour, contrary to what most people think, is not a social constructivist, but a kind of social realist or pragmatist. He sometimes calls his project "experimental metaphysics" (e.g., *Politics of Nature*, 241-242).

³⁴ IRV 12.

³⁵ The "ego-centric predicament" is refuted by the "New Realists" in 1912; see *Realism and the Background of Phenomenology*, ed. Chisholm (New York: The Free Press, 1960), 160-61. Compare Ray Brassier's discussion of Berkeley and "Stove's gem" in his "Objects and Concepts," in *The Speculative Turn: Speculative Realisms and Materialisms*, Harman et al. eds. (Sydney: Re-Press, 2010), 47-65.

³⁶ ELO 123.

this is just more of our own "positing." "If one 'posits' it to be self-existent in the judgment, then its self-existence is a merely posited one; if one thinks of an independent entity outside of consciousness, then its independence, and with it its being-outside of consciousness, is a merely 'thought' independence." 37 This is what Hartmann calls the "circle of thinking" argument. An almost identical form of argumentation is singled out for attack by another group of recent thinkers. The "critique of correlationism" asks whether we can conceive a world beyond the allegedly unsurpassable "correlation" between subject and object, or mind and world, taken to be foundational for Kantian and virtually all post-Kantian philosophy.³⁸ Put simply, for correlationism "we never grasp an object 'in-itself', in isolation from its relation to the subject...we can never grasp a subject that would not always-already be related to an object."39 Meillassoux claims that the human-centered post-Kantian tradition of philosophy has occupied itself predominantly with analyzing the way that the world becomes manifest through phenomena, language games, discursive regimes, subjective categories, pragmatic usefulness, etc., all of which necessarily assume the correlation of human and world. In almost exactly the same form as the "circle of thinking" argument presented by Hartmann, he sums up the typical correlationist argument on independence this way: "[W]hen you claim to think any X, you must posit this X, which cannot then be separated from this special act of positing, of conception. That is why it is impossible to conceive an absolute X, i.e., an X which would be essentially separate from a subject."40 Hartmann's ontology struck out on a new path thanks to a phenomenological analysis of knowing that takes the "independence" of object from thought seriously. He locates an equivocation at the root of the circle of thinking argument. When something is thought "adequately" (however provisionally defined), thought and thing coincide in terms of content. But in terms of their "way of being" (ideality and reality) they never coincide, and the thing always remains independent of its objectification, image, representation, or

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³⁷ ELO 127.

³⁸ Quentin Meillassoux, *Aprés la finitude* (Paris: Editions du Seuil, 2006), translated by Ray Brassier, *After Finitude* (London: Continuum, 2008). AF with page number.

³⁹ AF 5.

⁴⁰ Collapse III, 408-409. Compare Brassier's discussion of Berkeley and "Stove's gem" in "Objects and Concepts," in *The Speculative Turn: Speculative Realisms and Materialisms*, Harman et al. eds. (Sydney: Re-Press, 2010), 47-65, as well as with the "ego-centric predicament" refuted by the "New Realists" in *Realism and the Background of Phenomenology*, ed. Chisholm (New York: The Free Press, 1960), 160-61.

interpretation.⁴¹ For Hartmann, the first mistake of correlationists is counting on the primacy of the reflective attitude; speaking of a correlation *at all* means one has already risen to the level of epistemology and is assured that "world" must be the correlate of a subject. This epistemological characterization "makes a correlativistic prejudice out of the relational character of knowledge."⁴² But if "knowledge first objectifies the entity and by this deed presupposes its being this-side of all givenness" for a subject, then once we see this the correlativist prejudice collapses.⁴³

It is not enough to criticize neo-Kantianism and positivism on the grounds that they misconceive knowledge as a kind of correlation and creation. They all misconceive the object of knowledge too, and have confused it with the representation or image of the object in the knower's mind. They at the very least allow the line between them to disappear. In brief, representations and images are in consciousness, but *Seiende* are "independent" of consciousness, whether they are material objects or historico-spiritual objects like values.

In this Espinoza also agrees with Hartmann: "[F]rom a realist point of view [...] the fact has to be insisted on that, no matter how difficult it is to disentangle the thing-in-itself from our description of it, the distinction is real. Otherwise, the incredible conclusion will follow, that objects are created, invented or constructed, as we begin to be conscious of our experience: the internal object is not identical with the thing-in-

⁴¹ ELO 128-129.

⁴² GO 78.

⁴³ Ray Brassier sees this quite clearly: "[O]nce I distinguish the claim that my thoughts cannot exist independently of my mind, which is trivially true, from the claim that *what* my thoughts are about cannot exist independently of my mind, which simply does not follow from such a trivial truth," then I cannot be deceived by the claim that it is impossible to think of something existing independently of the mind ("Concepts and Objects," 63). "The correlationist conceit is to suppose that formal conditions of 'experience' (however broadly construed) suffice to determine material conditions of reality. But that the latter cannot be uncovered independently of the former does not mean that they can be circumscribed by them" (*Ibid.*). This is also what Hartmann means when he distinguishes between reality *in mente* and *extra mentem*. While they may not differ in terms of content, they differ in terms of *Seinsweise*, ideal and real.

⁴⁴ If we confuse the two, then we "lose from view the perspective on the unity, as well as independence-of-consciousness, of the real world, and are left with nothing but interpretations, concepts and representations. If one proceeds based on this alone, then one also leaves out of account one's own place as a human being in the world, and the anthropological interpretation of one's own human nature is botched" (ELO 127).

itself; a real object is not an ideal entity."⁴⁵ In a clear formulation, Meillassoux sums up the correlationist argument which blurs this distinction by saying that "[w]e can't know what the reality of the object in itself is because we can't distinguish between properties which are supposed to belong to the object and properties belonging to the subjective access to the object."⁴⁶ Therefore, the correlationist concludes, we have to treat everything *only* as a correlate of consciousness, mind, language, or subject. There are no things-in-themselves or absolute reality beyond the correlation.

Espinoza and Hartmann both claim that this inference is unjustified. As noted, it conflates the form of thought or presentation with the content of thought or presentation, or in Hartmann's terms, it unjustifiably obscures the difference in Seinseweise between image and thing. If I interpret him rightly, Espinoza's own view of language confirms this. Language shapes reality for us but does not veil it from us, and whenever we know something we have a "partial view" of the real world.⁴⁷ He thinks that learning is a gradual process of determining what proportion of what we conceptualize belongs to the world and how much to our concepts. Hartmann concurs, in that he conceives the historical process of grasping ontological categories (real structures) to be just such a gradual process of approximation that aims to eliminate parochial influences and standpoints in order to gain a comprehensive vision (*Umschau*). While there may be many ways of interpreting any given structure, there is in fact nothing wrong with multiplying these interpretations, for they can all provide us with "a fragment of genuine knowledge of the world."48 We might add that just because it is difficult and time-consuming to distinguish between concept and category (or object), this does not mean that there is no difference in principle, or that the concept or linguistic expression serves as a "veil." This would be like arguing that because human vision is limited to light of certain frequencies, we do not perceive

⁴⁵ IRV 16-17. Hartmann argued this very point from 1921 onwards. His late summary of this argument appears in ELO 127-128.

⁴⁶ *Collapse* III, 408-409. Even this is sloppy. It is the same as Descartes' distinction between the "objective reality" of the content thought and the "formal reality" of the being of thought itself.

⁴⁷ In this case, he would not only share this view with Hartmann, but with other philosophers of science who reject scientific realism but who remain realists, such as Helen Longino ("minimal realism"), John Dupré ("promiscuous realism"), and Keller and Golley ("mitigated realism"). See Longino's *Science as Social Knowledge* (Princeton: Princeton University Press, 1990), 222; Dupré's *The Disorder of Things* (Cambridge: Harvard UP, 1993), 36, 57-59; Keller and Golley, *The Philosophy of Ecology* (Athens: University of Georgia Press, 2000), 12-14.

things in the world at all and only see our own eyes in the process of looking through them. This conclusion is obviously too strong. At most it means that we have a *partial or incomplete* vision of the world. Likewise, cognitive *categories* as organs of perception (*Sehweise*) do not *prevent* us from seeing the world, but both facilitate and constrain vision. To object that categories and eyes are categorically different, and that we have a disanalogy here, is to already assume that language has the special power of creating reality given it by idealism and theism, a special sort of ontological priority of thought over things. To attribute to language a special ontological status is already to commit to epistemic anthropocentrism.⁴⁹ From an anthropological perspective (or of "embodied cognition"), human language is an organ of perception that is as much a part of our embodied immersion in the surrounding world as are eyes, ears, and hands. Intellectualist interpretations of language have tended to obscure this.

This sort of argument also implies that language is something *opposed* to reality qua nature, that the realm of culture or the human is radically different from that of nature.⁵⁰ Hartmann would argue that this apparent epistemological dilemma (correlationism) arises only on the basis of a false philosophical anthropology that misunderstands the place of human beings in the world. Such views are based on an exaggerated confidence in the power of thought, language, or culture, which is the typical anthropocentric attitude of the west. It is a view that has already committed

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⁴⁹ Let's not confuse two different claims here. Obviously, knowledge expressible in language is something that only humans have, so it does have a unique status in one sense. I am denying that it has any *ontological* privilege in the world. By "anthropocentrism" in epistemology I mean distributing the power of ontological determination to the subject or its capacities (e.g., language use) rather than to the object. This corresponds to a familiar Modern distribution of agency, or spontaneity and receptivity. Put crudely, where for the ancients the mind could receive essences from elsewhere and contemplate them, for the Moderns the mind creates essences. This has a very direct correspondence in attitudes to the natural world. For the ancients the world had an order which one struggled to understand and fit into, and there was no pretension to control or master it. The situation is reversed in the Moderns, and the attitude of mastery even reaches to epistemic claims about object construction. Post-Kantian philosophy *receives* nothing of any importance from the world, but only gives the law (meaning, norm, value) to it.

⁵⁰ This is how I interpret Espinoza's claim that for Kuhn, Feyerabend, and others, "language — and, therefore, everything possible thanks to language, for instance, the human way of being in the world—is more arbitrary and conventional than natural" (IRV 14). This implicit dualism is also evident where Espinoza resists it by claiming that "Reality is not a special area of the universe, that area which exists beyond the reach of our senses" (IRV 8).

itself to an ontological dualistic division of classes and unequal distribution of powers, attributing to language and thought the power of object-creation, or at the very least the power to trump, through meaning-giving, whatever powers the "real" or "material" object might itself possess. In order to combat this type of correlationism it is not enough to simply reassert the claims of reality as against those of humanity (as Espinoza sometimes seems to do⁵¹), but to reassess our fundamental categorial divisions and to redistribute degrees and kinds of agency (determination) in reality, without ending up with some form of monism or dualism. This means that an explicit discussion of the place of human being in the world, a philosophical anthropology, also based in a new ontology, is necessary for any epistemology that can do justice to the theoretical and socio-practical aspects of scientific knowledge production.

§ 5.— Anthropological Realism

In Hartmann's late work he claims that we cannot expect anything more from knowledge than *approximation to certainty.*⁵² This approximation is an historical, social process, and is exemplified in the growth of scientific knowledge. It is also a real process in the world, unique and unrepeatable like everything real. Bits of information, data, evidence, practice, or interpretation stream into this process from heterogeneous sources, either contributing to increased certainty or not. Hartmann argues that cognition has to be seen not only in the individual context of other "transcendent acts" such as loving and hating, willing and acting, experiencing and living, expecting, fearing, and hoping, but also in the context of social practices and institutions.⁵³ Such transcendent acts all intend some particular "existent counterpart" to which they are directed. The totality of these entities constitutes the real world, to the extent that they

⁵¹ "[W]e should try to do our best to reduce as much as possible the conventional and recover what is natural and necessary in our categories (to keep things within realist metaphysics)" (IRV 17-18).

⁵² ELO 136. Knowledge, and hence relativism about it, is not primarily a matter of "truth." Truths are present wherever the right truth conditions are present, once and for all. Relativism is not a question about truth, it is a question about being certain that we have the best or only possible view of things. Anthrpologically and historically speaking, we can never be certain of this. This is one reason why knowledge is approximative.

⁵³ ELO 129. "There is no such thing as 'knowing' isolated by itself. It appears only in combination with other transcendent acts, in which the contexture of living consists" (GO 222).

are at all grasped (or made objects for us).54 "The transcendent acts constitute the paths of relation between consciousness and the world in which it stands. One can also say: they constitute this very standing-inside-of-the-world (Darinstehen) itself."55 Hartmann anthropologically deflates the exclusively objectivist and intellectualist pretensions of the epistemologists and aims to characterize cognition in terms of its role in the life of the human being. Its role is not primarily that of discovering the truth of reality, but of orienting human beings in the world. Cognition is "a secondary form of relation, but a very unique and incomparable one. The *orientation* of man in the surrounding world depends on it. Initially it is subordinated to purely vital aims of self-preservation, thus is in service to the organism; then it is raised to higher practical aims, finally it is freed from all of its external ends and serves only pure contemplation (Umschau), the grasping of the world as such."56 Here he recognizes the partial validity of the claims of the Lebensphilosophen and the pragmatists, but he clearly aims to preserve the ancient aspiration to "disinterested" knowledge and contemplation, for he holds that this constitutes a real dimension of the spiritual life of man. "Only now can we appreciate the genuine place of knowledge in the world. Before we thought that the world was nothing but the correlate of the subject; [but in fact] that which it makes into an object is a selected portion of the world, and cognition is itself a piece of the world, a member or participant, one borne by many other pieces of the world which are primary in relation to it, with their own independent existence."57 Between the initial givenness of "what

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Hartmann has always argued that beings in the world are initially gnoseologically "transobjective," and subsequently made into objects (representation, image, interpretation) by the process of knowing (ELO 130). This reflects not the power of the "transcendental subjectivity" of the knower, but the *anthropological position of human being in the world*: the world of potential objects existed long before humans arrived, and only once he arrived are they secondarily "objectified." This is another reason why subject and object are thus not construed as correlative parts of an egalitarian relation. There is an asymmetry in that most things in the world temporally preceded us, and remain utterly indifferent to whether they are known or not. ⁵⁵ ELO 138. "Ontologically expressed: our standing-in (*Drinstehen*) the real world is a beingbound to it by means of a multiplicity of relational threads. In and as this being-bound we experience the world, and also experience our own being as a being within it" (GO 221).

⁵⁶ ELO 138.

⁵⁷ Translation paraphrased, ELO 138.

is" and what ultimately will be understood to be "real," there lies the whole "process of constructive labor" pursued in knowing or learning what things are.⁵⁸

This place of knowing in the world, being carried by or being dependent on other things, is very exactly expressed by the stratified ontology developed in Aufbau. Hartmann uses the categories of Darinstehen and orientation, in addition to those of "belonging" (Zugehörigkeit) and "allocation" (Zuordnung), in order to characterize the anthropological position of a cognizing human in his stratified ontological scheme. All beings in the stratified view can become objects of knowledge, even consciousness itself, which is just what epistemology does by reflecting on it. This gives cognition an ontic "double relation." On the one hand, as a spiritual function it is dependent upon the entire stratified structure of the world, "belonging" to it. His term is Zugehörigkeit, which implies our embeddedness in the world of real natural and social relations, our Darinstehen. On the other hand, the whole order of things is "allocated" (Zuordnung) to cognition, they are its potential objects. There are also different modes of cognition, such as perception and conception, which allocate different aspects of the being's content to cognition. To perception are allocated sensory qualities correlated with physical light- and sound-waves in particular cases. To conception are allocated the universal aspects of the thing, its regularities and resemblances of structure.⁵⁹ This leads it to the laws that govern them, and ultimately to their categories. This brings us back to the Kantian claim that we have a priori knowledge only to the extent that cognitive categories are "the same" as ontological categories. What constitutes the sameness here is categorial "recurrence with modification." Cognition is itself a "raising to a higher power" (Schelling) of categories that pre-exist knowing. In the knowledge relation, the whole world is represented, and in this representation of the world all of the categories of the world, lower as well as higher, recur as contents within knowing. So we have to distinguish between ontic belonging (Zugehörigkeit), where knowing has its own particular ontological categories of the spiritual stratum, e.g., "the objectivity of its contents, transitivity from subject to subject, separability from the mental

⁵⁸ ELO 137. This can easily be placed into Latour's framework, where there has to be a "democratic" participation in knowledge construction by all, including nonhumans. See *Politics of Nature, passim*.

⁵⁹ A 196. The Kantian distinction between sensation and conception is blurred by the anthropological interpretation. Even when the distinction is preserved, it is because both are different sorts of "witnesses" to the same worldly events, and their testimony provides independent and perhaps mutually supporting corroboration.

act that bears it, its *indifference* to subject and act, a peculiar 'hovering' sort of existence in objective spirit, etc.," and the categorial content itself that is transposed into the sphere of knowing, where it is *allocated*.⁶⁰ This is the creation of "an image of the world within the world itself," and this image has its own unique ontological status.⁶¹

The double relation of specific categories within this framework has to be considered more closely. For example, "space" can be a category belonging to the conceptual content of physical things, but it is a category that is not itself a condition of the peculiar operations of cognition, since cognition is not properly a spatial event.⁶² "Causality" and physical "substrate" also do not belong to knowing as such, and yet these must recur in thought's content when we know physical objects in the world. As content they do not directly condition thought, since thought operates according to its own spiritual categories.⁶³ The category represented in thought may or may not be itself a structural moment of the process of knowing. Unreflective intuiting and experiencing are acts that occur in time, and so have temporality as a determinative category in their real process, and reflective knowing is itself an act in time when we try to know our own experiencing. However, while mental acts unfold in time accompanied by consciousness (not itself temporal), they can represent contents for all possible courses of events, past and present. While its acts are bound to the time of consciousness, it can yet know contents from all times. "The time in which

⁶⁰ A 197.

⁶¹ A 198. Gehlen uses the phrase "an inner outer-world" (borrowed from Novalis) for the same phenomenon. Cognition is repetition-with-difference rather than mirroring or correspondence. This constitutes a kind of "loop" (*Kreislauf*) through which "in the human spirit [,which 'belongs' to the world], the world as the sum total of entities comes to consciousness of what it is [through its 'allocation' to spirit]" (ELO 138-139). He continues, with a comment on Hegel: "We may very well speak, in this sense, of a 'being for itself' of the world, which takes place in knowledge of it; for knowledge is at bottom a real relation and belongs, as a function of the mind, to the real world too. So far there is no exaggeration in the often misused concept of 'being for itself.' Only we must not understand the latter concept in the Hegelian manner as a 'being for itself of the spirit,' but solely as a 'being for itself of the world (or of beings)'. We must also not shove a teleological tendency, permeating the whole world, under the realization [of the world's 'being for itself'] in man, through which it would become a determining *telos* of the ontic series of levels." This would be to draw a highly anthropocentric conclusion from this characterization. "The world is not set up to be known" (ELO 140).

⁶² A 198. This doesn't mean that spatiality is irrelevant to cognition or consciousness, since the "strength" of the lower categories consists in bearing the higher levels, even if they have little substantive explanatory value.

⁶³ A 198.

consciousness runs its course is not the time in the consciousness of temporal events."⁶⁴ This betrays the fact that cognition belongs to a certain stratum of the real world (it is not eternal or separable from embodiment), while at the same time allocating contents of some of the same categories to what is represented. Ontological categories are themselves first known by means of objects themselves, and are given "through the mediation of their modified recurrence in knowledge."⁶⁵

This is not the only way Hartmann characterizes the place of the human mind in the structure of reality. This situatedness is characterized by orientation, Darinstehen, belonging, and allocation, and also in what he calls the "curves" of "givenness" (empirical cognition), of "categorial identity" (apriori cognition), and of "indifference." Our empirical knowledge is constrained by our anthropological access, as is our a priori knowledge, and the (non)indifference of things to knowing also constrains our knowledge of other minds and organisms.66 First, there is a gradation in the "givenness" of objects to knowledge, or in our "access" to them. Much like Bergson's claim that the human mind is designed on the pattern of its action in the world, and that it has a fundamental inability to think "life," 67 Hartmann expands Bergson's notion to give an anthropological account of differential givenness for the objects in all four of his strata. We do not have clear access to the psychical (mental) domain either, since "the authentically subjective always partially withdraws from becoming an object, and the non-objectifiable part is precisely the most important and authentic side of it."68 The givenness of spirit is again different from this. While we have an inner access to it, it is also objective in the sense that "we move in it and have to find our bearings in it, just as

⁶⁴ A 199.

⁶⁵ A 200.

⁶⁶ Hartmann complains that relativist (idealist) philosophies have no way to explain why our knowledge of one domain of beings is *universally* less developed than our knowledge of some other. Human knowledge of living things has developed more slowly than and remains deficient relative to physical knowledge, he claims. There must be some other explanation for this aside from arbitrary historical and cultural category choices.

⁶⁷ ELO 142. "We can well-understand anthropologically--and that means ontologically--the issue at hand. Our knowledge is primarily an organ for getting one's bearings in the surrounding world and it serves this practical aim. Therefore, the givenness of surrounding things is essential, and perception of inner life processes is not only unnecessary, but positively a hindrance."

⁶⁸ ELO 143. Cf. Scheler here on non-objectifiability of spirit/person in *Die Stellung des Menschen im Kosmos* (Bonn: Bouvier, 2002 [15th ed.]), trans. Meyerhoff, *Man's Place in Nature* (New York: Beacon Press, 1961).

in the natural world." It takes the form of "objective spirit" or culture, including language, knowledge, law, morality, religion, which have a historical reality and condition the formation of the personal spirit.⁶⁹ In this way the cultural world is a lot like the physical world, where both are given clearly to the everyday stance. The same anthropological argument can be used in both cases: both realms are clearest because knowledge of them is most urgent for everyday life and our constantly renewed attempts at orientation, the "original practical fittedness of knowledge to what is vitally necessary."⁷⁰ Life and psyche are far more obscure and harder to know because we do not need to know them well in order to live.

Another sort of constraint on knowing stems from the "indifference" of things to being known. Hartmann never tires of reiterating that entities are indifferent to whether they are known or not, and their being known by us in no way affects their being, neither their Dasein nor Sosein. Secondarily though, there is another sense in which some beings are not indifferent to being known, and either attempt to seek it or to escape from being known. Some higher nonhuman animals are "shy" and try to withdraw from our gaze, and dogs on the contrary constantly check to see if they are being observed by their masters. For humans especially, "knowing that you are known" (Sicherkanntwissen) is a determining factor of behavior, and we can also actively "desire to be understood." These have an impact on those who attempt to know us. We can not only passively hold our true intentions back, we can actively deceive others, wear a mask or a pose.71 This is a modification of indifference that imposes new relations on it, but does not cancel it out. This "curve" also shows that historical and cultural artifacts (language, law, morality, art) and physical things do not resist being known, where our interests for vital and practical life are strongest, but there is more resistance to knowledge at the level of living things and especially mental life.72

The curve of categorial identity deals with a priori knowledge, and hence, directly with categories. This is the most important of the three constraints for Hartmann because the categories are the realist core of his ontology. *Eidos, essentia, universalia, simplices,* Husserl's "essential laws," are all ways of describing categories. In all cases they have a double aspect: they are both cognitive principles and ontological

⁶⁹ ELO 143.

⁷⁰ ELO 144.

⁷¹ ELO 156-157.

⁷² ELO 158-159.

ones.73 Kant's formula asserted the complete identity of cognitive and object-categories, but Hartmann claims this goes too far. If all categories of things were also cognitive categories, then nothing in the world would be unknowable. Therefore, there must be only a partial identity between cognitive and ontological categories. The range of a priori knowledge must correspond exactly to the range of the identity between cognitive and ontological categories.74 Discovering this boundary, however, requires a "differential categorial analysis," where we find out which categories, or even parts of single categories, are identical cognitively and ontologically. The boundary of categorial identity can run right through the middle of a category. Hartmann claims that a fertile field lies before us for this kind of work, and that some of the most important problems of philosophy will be solved by its means.75 "Categorial identity" here is a question about whether our operative categories are also real categories (functional "categories of cognition"), not whether our concepts of categories correspond to ontological categories (explanatory "cognitive categories"). The latter question is dealt with in the next section on historical changes in forms of thinking. Here too the "curve" runs parallel to the first (greater identity at social-historical and physical levels, less at the mental and organismic), and interpreted anthropologically, these degrees of categorial identity again become explicable. "For categorial identity means a priori knowledge, and this means orientation, evaluation, and control."76 The parallelism in all three curves exists because spirit (knowledge) rests on all of the lower strata ("belonging"). "Knowledge serves the orientation of man in the surrounding world, and this is made up of things and people living nearby," while "getting one's bearings does not so urgently require knowledge of the organism and mental processes." Both empirical and a priori knowledge are constrained in these areas for these anthropological reasons.⁷⁷ Our cognition is *conditioned* by physical, biological, psychological, and socio-cultural factors, none of which entirely determine the content of what is known. Things in the world are still independent of and indifferent to us. Hartmann's stratified ontology keeps him from fully "naturalizing" epistemology just as it keeps him from "transcendentalizing" it.

⁷³ ELO 145.

⁷⁴ "The boundary of [a priori] knowability of the object is drawn by the boundary of categorial identity" ELO 146.

⁷⁵ ELO 146-47.

⁷⁶ ELO 149.

⁷⁷ ELO 154.

[S]een anthropologically, cognition generally is to be understood as adaptation of the human being to the pre-existing world, into which he develops as a late-coming member. However, one should not take 'adaptation' in a narrow biological sense, since knowledge propagates in history, which is of course none other than that portion of the world-process in which human beings codetermine events, including those of cultural life. Here cognition is the means of his *orientation* in the world, though initially always only in the current state of the (historical) world, to which at all times the proper spiritual situation of human being belongs. Indirectly [cognition is] also always a means of orientation in the world generally, from bottom up and as a whole. *Orientation* of this kind is by its very nature more than adaptation, since it has the tendency toward development, mastery and elevation of human nature (*Menschenwesens*) implied in it.⁷⁸

Self-orientation and adaptation through knowledge take place by means of cognitive categories, the range of which can expand to embrace more and more of the structure of the real world. The question of "categorial identity" is, therefore, also important when considering the historical expansion of knowledge, including that of the sciences.

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⁷⁸ ELO 162. My italics. This reveals Hartmann's acknowledgement that knowledge has an "interest" or set of them, including mastery and control, and so is not utterly neutral as regards the theory it produces about the world. Hartmann's notion of a "standpoint" and of "prejudices" keep him from recognizing that knowledge and even category theory are "interested" in this more basic sense. However, what the specific value qualities are that are to be realized in any endeavor (including knowledge) is a difficult question, and to make the blanket claim that knowledge seeks control, or contemplation, or "consummation" as does any other activity, is question-begging. Something is sought, and what it is remains to be determined by the analysis and is not a priori evident. Habermas dogmatically claimed that there are exactly three kinds of "cognitive interest:" technical (empirical science), practical (human sciences), and emancipatory (critical theory). (Knowledge & Human Interests, Trans. Jeremy Shapiro, New York, Beacon Press, 1972). What is lacking here, as elsewhere, is an axiology, not only for ethics, but for every human activity, including the seeking of epistemic values. Beyond this already difficult issue, a discussion of the prioritization of the multiple values always at stake in these activities is sorely needed. The blanket claim that knowledge or explanation seeks "consummation" or "control" are really just placeholders for a detailed analysis, in the same way that "intrinsic value" in environmental ethics is a placeholder. These are remnants of the philosophical predisposition for universality, but which in many cases (as in environmentalism) results in stopping the analysis too soon, or assuming there are no more general principles left to discuss, the remainder being left to individuals to decide. If we could go one step further to actually discuss, for instance, diverse values at stake in environmental conflicts and ways of entertaining their prioritization, environmental ethics would be a far more useful philosophical endeavor. (On this point, see my "From Ecological Politics to Intrinsic Value: An Examination of Kovel's Value Theory," Capitalism Nature Socialism, Vol. 21, 2010, 3: 81-101.)

Hartmann examines categorial change throughout history as a gradual process of learning to orient ourselves in the world, with a general tendency toward growth of knowledge and its increased adequacy, but with no guarantee of progress.

§ 6.— Relativism and Stratification: The Growth of Knowledge in History

Espinoza argues that because science can be self-critical and self-correcting, the absolute relativist is wrong.79 Hartmann makes a very similar argument. In the introduction to The Structure of the Real World Hartmann reflects on the variability and invariability in categories when he provides an explanation for differences in "forms of thinking" throughout history and culture, as well as an explanation of the phenomenon of the growth of knowledge. In "Knowledge in the Light of Ontology" he joins this to a discussion of philosophical anthropology. He explains that there are two sorts of categorial change. There is growth and expansion of our world image thanks to the discovery of new ontological categories over time, and there is also the refinement and improvement of our own categorial tools. We are not born with these cognitive categorial tools, but they are "presupposed in experience." The history of human knowledge shows that these categories change.80 Hartmann argues that virtually all historical categorial change is cognitive categorial change, while ontological categories remain the "invariant counterparts" of the cognitive categories, and the ultimate terms to which cognitive categories approximate. This doesn't mean that ontological categories are not capable of change, it just means that they change in accordance with a different tempo and law.81

⁷⁹ SR 13

⁸⁰ ELO 160

⁸¹ Compare to Pierce's insight that the laws of nature are not eternal and unchanging. Sidney Hook also expresses the same point in his essay on Hartmann: "rates of change of different things are different in reference to one another" ("Categorial Analysis and Pragmatic-Realism," The Journal of Philosophy, Vol. 24, No. 7 (1927), pp. 169-187; 181). To us physical laws seem eternal, but to the universe the span of their sway may be fleeting. "Categories differ not in ontological status, but only in existential level, extent, and practical efficiency—or in spatio-temporal duration, intensity, and power" (181). The whole cosmic development from atom to spiritual life could be seen as the periodic onset of new groups of categories (ELO 161). Hartmann uses the term "onset" (cinsetzen) whenever he mentions a scenario like this, rather than a more

He primarily deals with changes in explanatory cognitive categories in this essay, none of which are immutable (contrary to what Kant thought). Kant made a sharp distinction between "concepts of the understanding" and "forms of intuition," but Hartmann calls both types of categories. The apparent distinction between them is that some are automatic and function unconsciously, while the others can be "applied" at will.

Forms of intuition do not change, are subject to no historical alteration, and cannot be replaced through any sorts of other forms; or anthropologically expressed, they are ancient (*uralte*) modes of seeing (*Sehweise*), rooted even in nonintellectual (*geistlos*) consciousness, are already contained in perception (as its conditions), and function in consciousness completely involuntarily. They are not 'applied' to things. Categories of the understanding, in contrast, are 'applied;' i.e., they may be applied or also not applied. Their employment is to a certain degree open to human choice. 82

Hartmann thinks that over time categories that are at one time deliberately applied may eventually become automatic, effectively dissolving the notion of the "fixed a priori" (which he takes to be a major achievement). Knowledge is a mode of human orientation in the world, and our categories change partly in order to increase adaptation to the surrounding world. This adaptation happens both "naturally" and historically. Every labor with categories is at the same time a labor on ourselves, according to a principle of feedback that Hartmann derives from both Hegel's *Phenomenology* as well as Gehlen's anthropology. It is this ability to respond to feedback that leads to improvement of our condition through invention of new means and refinement of existing ones. "Orientation" in the world is directly proportional to the degree of "categorial identity," and that means that the wider the coincidence between cognitive and ontological categories—the more a priori categories we have—the better adapted we become.

common term like "develop" (*entwickeln*), because he often explicitly opposes "emergentist" metaphysics. See his critique of emergentism in PN 325-330, NW 108-113.

⁸² ELO 161. This is now a very common distinction in recent cognitive science. See, for example, Lakoff and Johnson's theory of embodied cognition, *Philosophy in the Flesh: The Embodied Mind and Its Challenge to Western Thought* (New York: Basic Books, 1999), as well as social intuitionist psychology, e.g., Jonathan Haidt's "The emotional dog and its rational tail: A social intuitionist approach to moral judgment," *Psychological Review*, Vol 108(4), Oct 2001, 814-834.

Understood as 'categorial adequation,' the emergence of new categories into consciousness, or their transformation with the tendency toward adequate knowledge, means nothing other than the expansion or the improvement of our capacity for a priori cognition (*Erfassens*). Or, ontologically expressed, it means the progress of categorial identity itself, in that the flexible apparatus of cognitive categories substantively adapts to the stock of ontological categories.⁸³

Hartmann was sensitive to the debates over universalism and relativism surrounding him, and realized that in order to develop a comprehensive theory of ontological categories he would have to provide some explanation for the great variety of extant conceptual frameworks. We have already seen that he is hypervigilant when it comes to applying categories from one domain to another illegitimately, and he is well aware that there are even greater differences between what he calls historical and cultural "forms of thinking" (Denkformen). But his solution to Grenzüberschreitung also informs his solution to the relativity of forms of thinking. He responded to the former by distinguishing between variable "standpoints," which bring in unacknowledged dogmatic prejudices and lead to the overemphasis, privileging, or illegitimate transfer of one set of categories to another domain. But there is some invariability behind this variability. What does not vary is the stratification of ontological principles, and this is often obscured from view by dogmatic monistic or dualistic standpoints. Similarly, he sees a relativity of "forms of thinking" and Weltanschauungen in history, but the categorial structure of the world to which these are responses remains unchanged. This invariable structure is to be studied by category theory, not by ethnology or by a "psychology of types of thinking."84 The latter is an "analytic of eye-glass lenses" that has attempted to convince us that "we can only see the lenses, but cannot see the objects through them any longer."85 (The obvious similarity between this and Espinoza's metaphor of "veiling" should not be overlooked.) Forms of thinking and the presuppositions they entail are themselves cultural phenomena that change historically in accord with principles of cultural change, while the world and its principles do not change. "[Ontological] Categories do not change with historical forms of thinking."86 "Forms of thinking" and "concepts" are more variable and change more quickly than cognitive categories themselves. Anthropologically speaking, concepts (as well as

⁸³ ELO 175.

⁸⁴ The polemic here is largely against Dilthey (and perhaps Jaspers). See A 17-20.

⁸⁵ A 19. There are obvious connections to the critique of correlationism above.

⁸⁶ A 20.

cognitive categories) are also "ways of seeing" (*Form der Schau, Sehweise, Auffassung*). There is no sharp line between the changes in forms of thinking or concepts and the changes in categories, and one can be in doubt about which we are dealing with.⁸⁷ Our concepts of categories are human products, and attempts to grasp ontological principles. As such our attempts can be inadequate.

Hartmann places pragmatism, historicism, and Vaihinger's theory of the "as if" in a single group of "relativisms," and interprets them as a series of increasingly damaging approaches. Hartmann has an underdeveloped interpretation of pragmatism typical of many German philosophers of the time, and he regards it largely as a form of biologism or *Lebensphilosophie*. The pragmatist interpretation would say that categories are merely "forms of adaptation" to the particularity of actual life at any given time. Conceptual frameworks, he notes, may even give an evolutionary "selective advantage." However, Hartmann claims, it is a mistake to therefore base the validity of categorial thinking solely on the effectiveness (pragmatic, vital utility) of categories for satisfying the requirements of life. Secondly, he deals with historicism, by which he indicates approaches that aim to simply describe an array of diverse worldviews side by side, without making any judgment as to their validity, advantages or disadvantages. As such it is harmless, in the same way that multiculturalist reveling in the sheer diversity of peoples and cultures is harmless. But it tends to forget the real landscape to which any worldview is a response, namely, the single real world which these views attempt to map. Finally, Hartmann heaps scorn on "as if" theory, which regards categories as "useful fictions" with no genuine purchase on the content of the world. He regards this as the furthest expression of relativism, because it gives up on the "real world" entirely.88 He makes the now familiar argument that all forms of relativism are self-refuting when the attempt is made to universalize their principal claim.89 In the end, also, they presuppose just what they deny, namely, the existence of shared categories that lie at the basis of both their own and others' forms of thinking.

⁸⁷ ELO 164.

⁸⁸ Vaihinger appeals principally to Bentham, but also to Nietzsche, to develop this relativistic theory of categories. *Die Philosophie des Als Ob* (Berlin: Reuther & Reichard, 1911), trans. C. K. Ogden, *The Philosophy of 'As If': A System of the Theoretical, Practical and Religious Fictions of Mankind* (New York: Barnes and Noble, 1968 [first published in England by Routledge and Kegan Paul, Ltd., 1924]).

⁸⁹ A 26-27.

They would not be comparable at all if they did not share at least some categories, and did not refer to the same world.

Since all of these varieties of relativism rest on faulty assumptions, the evident cultural and historical variability of category schemes has to be explained another way. The "curves" discussed above characterize some anthropological constraints on categorial schemes, but there are also other reasons why different category schemes are different from one another. 1) As mentioned above, they may vary in terms of the stratum of categories emphasized, while categories of other strata recede into the background or disappear entirely, as occurs, e.g., in teleological Aristotelian or mechanistic Modern metaphysics. This is the problem of "standpoints." These are forms of the error of boundary-crossing on a grand scale. More importantly, 2) within strata they may emphasize one category at the expense of others, e.g., causality over process in the physical stratum, or spatiality over temporality. In addition to its predilection for boundary transgression, even within biology, for example, neo-Darwinian evolutionary theory emphasizes the individual gene ("central determination") at the expense of organism and environment, cellular or social ("holistic" and "reciprocal determination"). 3) Categories themselves are not "simples" and they may contain many categorial moments or factors in themselves.90 This single insight provides Hartmann with a very flexible and often subtle means of approaching different category schemes. Consequently, accounts may also emphasize one aspect of a category at the expense of others, as, e.g., in modern sciences the lawfulness of the causal relation is emphasized over its factor of productiveness. Or finally, the degree of this selected aspect may be maximized or minimized. All of this variation of conceptual schemes takes place against the backdrop of an unchanging real world structure to be discovered and explored.

It may then seem surprising that, in agreement with the relativists, Hartmann is opposed to the naïve Enlightenment notion of the cumulative and inevitable triumphant march of human knowledge. In contrast to the relativists, however, he believes that it makes little sense to interpret the shifting diversity of historical conceptual schemes as a kind of utterly contingent variation. He thinks that over historical time there has been—if not a "progress"—then at least a "growth" of human knowledge about the world. He thinks that the kernel of truth in pragmatism is that human beings do have the tendency to seek to control the world around them, and this

⁹⁰ A 28-29. See also HCOP 293-294 (bracketed page numbers in text).

is also consistent with his appropriation of Gehlen's anthropology. However—this is where he departs from the pragmatist claim discussed above—this mastery of what is presupposes "true knowledge," namely, the previously mentioned "coincidence" of cognitive and ontological categories. This expresses his general opposition to instrumentalism: in order for something to be useful in life it has to be true or adequate, it is not "true" because it is useful for life. 91 That would be another instance of an "explanatory" collapse of strata. In another essay of the same period, "Philosophy of Nature and Anthropology" (1944) he puts it this way: "A knowledge of the universal aspects of the world only truly has any meaning if the world itself contains universal structures to be understood—orienting ourselves by means of the simplifications of universalization can be adaptive only if the world itself has universal, formal structures in it."92 Different forms of thinking depend upon different categories, and some forms are better than others, but the metrics for determining this have to result from a comparative analysis of categorial frameworks as well as their motivating epistemic values and contexts, and cannot be carried a priori into it. The various degrees of power or control over things depends on this knowledge and change in schemes.⁹³ Therefore, a directionless alternation of forms of thinking is unlikely. We could only think that history is nothing but the continual replacement of one more or less arbitrary conceptual scheme by another, rather than a growth in a general direction, if we were completely indifferent to whether these schemes allowed us to function better or worse in the surrounding world. No one would take such indifference seriously. Everyone concerned with genuine problems and struggles realizes that what comes later can improve on what comes earlier, and has a real interest in growth of control and improvement.94 We do not have to believe in the inexorable march of progress in order to believe this. There appears to be "a general direction toward the growth of knowledge" because the human being's "basic situation the world" does not change over time, and because we can look at historical evidence that humans have always striven to gain at least some control over their surrounding world.95 Nothing more grand than this is implied in "growth."

⁹¹ A 30.

⁹² In Kleinere Schriften I (Berlin: De Gruyter, 1955, 214-244) 230.

⁹³ A 30.

⁹⁴ A 30-31.

⁹⁵ A 31.

Over time, larger and more varied groups of categories enter into the "forms of thinking." The dominance of individual categories becomes more and more limited with increasing experience, and a broader perspective should create equilibration. As he has argued, our struggle as ontologists is to make a decisive step toward overcoming one-sided perspectives in philosophy. 6 The small section of the total range of categories we are able to grasp at any given time may wander around the "landscape" of principles, and it broadens in scope while not always obliterating what has already been discovered. New categories may be "activated" for us that were not active before (from our limited perspective) in our consciousness of the world.97 We have generally historically begun with the two most obvious fields of given evidence: the domain of things and substances, and the domain of human intentions and actions. Exclusive focus on one or the other has led to mechanism or teleology, respectively. But the process of expanding our view is fourfold, Hartmann explains. From the mental level one can move upwards to objective spirit, and also downwards to the organic; and from the physical level one can move upwards to the organic, and downwards to the most fundamental categories. The categories of all of these strata have to be "activated" in our consciousness of the world.98

Returning to the theme of categorial adequation over time, he holds that categorial insight begins with instability of categories, and only gradually stabilizes or eliminates them. Some categories may become so stable that they function like *Anschauungskategorien*, intuitively and automatically, without needing to be "applied" deliberately. He claims that it is conceivable that all categories could become so stable. What is at least clear is that the longer we work with these tools the less able we are to deliberately apply them, and they become like "involuntarily functioning organs." This constitutes a real break with Kantianism, and Hartmann claims it is analogous to the historical break introduced by Darwin when "species" were no longer seen as fixed and unchanging. The result is that "the change in cognitive categories is resolved into the general process of human adaptation to the surrounding world." The

⁹⁶ A 31.

⁹⁷ A 34.

⁹⁸ A 36. He also says they "penetrate" into consciousness from a state of being unrecognized. He discusses (fundamental and special) traditional categories in ELO, including Being, Becoming, Cause, and Substance, as well as newer categories, such as Selection, the Unconscious, Transcendent Act, and Consistency.

⁹⁹ ELO 172.

anthropological deflation of epistemology is complete. "The process of knowing is overall a component of the greater process of spiritual life in history, and this is essentially determined by the progressive orientation of humans in the world. It belongs, therefore, to the universal tendency to adapt and can only be separated from it by abstraction." Hartmann, being highly sensitive to errors of *Grenzüberschreitung*, cautions against interpreting this as some form of "biologism." He is arguing that cognition is one sort of human act embedded in a whole context of other transcendent acts.

In the light of ontology this context comes once again into its own. With it knowledge is placed once more within the circle of human existence (*Existenz*), personal as well as shared historical existence. 'Adaptation' is in this sense a borrowed expression, but there is no reason to understand it in a narrowly biological sense. For the adaptation of humans advances in the historical life of the spirit, and what begins in the animal world under the hard pressure of selection, continues actively to the height of the spirit and purposively in light of a consciousness that has reached full flower (*zur Entfaltung gelangten Bewusstseins*).¹⁰¹

Because human beings are "multiply stratified" in themselves, no single set of categories (e.g., biological ones) could be used to completely explain their activity. It may be that some naturalistically conceived impulse motivates cognitive adaptation to the world, but this adaptation is simultaneously a historical and cultural process that is only analytically separable from the other, and possesses its own type of order and motivation.

In light of this anthropo-ontological conception of knowledge and categories, an analysis of the categories of a future philosophy of nature would take place within the framework of a flexible, pluralistic, realist, and non-relativist philosophy. In its pluralistic aspect it is ideally suited to provide a framework for the analysis of the kinds of highly unstable, multifactoral categories that arise in ecosystems ecology, for example. The category of "ecosystem services" is one that spans the natural and social sciences and has in recent years formed the center of complex discussions around the

¹⁰⁰ ELO 173

¹⁰¹ ELO 174. "The adaptation that we are dealing with here is therefore not a biological one, because it is rather a categorial one, and it plays itself out in the historical process of spiritual life. One has to seek its process two strata higher in the structure of the world. And there it moves with ample freedom above the adaptive processes of the organism" (ELO 175).

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dependence of humans on nonhuman animals, other forms of life, and the abiotic environment.¹⁰²

§ 7.— Conclusion

Hartmann presents a critical ontology that is realist and progressivist. His ontological outlook frames a *Philosophy of Nature* whose categories may be at present inadequate for the purposes of exact knowledge (say of biological or psychological knowledge) but which may become increasingly adequate. In the light of ontology and anthropology, therefore, Hartmann avoids the extremes of scientific realism and social constructivism in his view of science, and avoids naturalism and transcendentalism in his theory of knowledge. While this gives his view a pragmatic bent, his stratified ontology also guarantees that in his own anthropology he avoids both biologism and radical human exceptionalism. Hartmann has a generous and even-handed ontology that aims to include difference and multiplicity while at the same time recognizing the underlying unity of real structure in the world. Whatever shortcomings this view may have, at the very least it provides an innovative alternative for contemporary thought that does not occupy any well-worn dualistic extreme.

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¹⁰² For a small sample of such a treatment, see my "Ecosystem Services, Nonhuman Agencies, and Diffuse Dependence," in *Environmental Philosophy*, Vol. 9, No. 2, Fall 2012.