



Ontology

## A Vindication of Ontology

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**ABSTRACT:** I argue that ontology, when distinguished from metaphysics and taken to mean the most general theory of reality, is a genuinely cognitive enterprise. Thus it follows that ontology, and not epistemology, lays the foundation for all philosophical thought. The main task of ontology is to elaborate a conceptual framework that can deal with all domains of being (material and spiritual, real as well as ideal) and then solve problems appearing at the point of contact between different domains of being.

### I.

From the dawn of the modern era, metaphysics — conceived as a theory of ultimate reality beyond appearances — has been mostly in disregard. Not only was it dethroned from the once occupied position of the first philosophy (the rebels like Descartes, Kant and Husserl argued that philosophy needs a more sound and secure, epistemological foundation). What is more, from Hume to the Vienna Circle metaphysics was pronounced infamous and refused the very name of knowledge. In place of meta-physics, meta-science has been proposed as the main philosophical endeavor.

Now, what is true of metaphysics is not necessarily so with regard to its close kin, ontology, provided the latter is defined as the most general theory of the same reality all science addresses itself to. I see no reason why it could not be a branch of objective knowing on a par with science. On the other hand I contend it is epistemology that desperately needs ontological foundations rather than the other way round.

Consider cognition of the real world for example. Any knowing of it must start with perception. Now, for perception to be possible first the outer world must impinge on sense organs, that is on a live body, and then the changes resulting therefrom must somehow affect the mind. To be able then to correctly interpret the resulting mental states one has to take some stance concerning the mind/body relation. This already implies an ontological — monistic or dualistic — commitment of epistemology. And this is only a preliminary step, for in perception we do not perceive just internal mental states, we perceive objects in the outer world. How is that passage from what is subjective to what is objective possible? To answer this question one must know what kind of being the cognitive subject is like, on what principles it acts, how it is integrated into reality. These questions involve ontology as well.

The same must be said about ethics (think of free will or of ontological status of values) and, to tell the truth, of all areas of a serious philosophical thought. Therefore I claim that

all philosophy is grounded in ontology and that it is the latter which can render philosophy its desired unity. (1)

In what follows I will try to outline such ontological foundations and will try to demonstrate its all-philosophical import by indicating how it can contribute to dealing with some basic philosophical problems. (2)

## II

The most primitive category of ontology is that of being. What is being? Due to the transitive and intransitive modes of the verb "to be" of which it is derivative, being can be characterized as both something determinate (a subject of predicates) and existing, that is as having "essence" and "existence". This is a purely descriptive, "immanent" notion of being.

For two reasons, however, the formula is not satisfactory. First, if ontology is to be a theory of reality, its basic categories should be of an explanatory, not of an purely descriptive kind, and therefore should be cast in terms of external relations rather than of inherent properties, for in reality all its constituent parts are in many ways interrelated. Second, whatever we can say about the existence of any being, we are bound to make use of some predicate, and whatever can be predicated concerns solely the "essence", not the "existence", of being. We thus seem to lack adequate cognitive resources to deal with existence analytically.

As to the second difficulty, I think it can be mitigated if we allow a relative concept of different modes of existence. Being unable to ascertain what existence consists in, we can at least differentiate things according to the way their existence is related to the existence of other beings. In other words, existence can be characterized by its consequences — e.g. what would change provided a given entity did not exist. Then we can choose some property or properties to serve as indices or criteria of some particular mode of existence. With two criteria at hand there will be four, and with three-eight modes of existence, and so on in an exponential order. I think eight modes would be too many, begging for deployment of Occam's razor. It therefore seems rational to propose two criteria thus getting four existential modes as a result.

I propose the following two: 1/The ability to act (to bring about some change), and 2/ The possibility to be acted upon from without (to be changed by some external action). Now, entities satisfying both criteria will be called real. Those which satisfy only the first one I will call surreal, while those satisfying only the second one I will call unreal. And last — those satisfying neither of them I will designate as ideal. The real mode of existence is thus the strongest one; all the rest lack one or both requisities of real being.

All material things are of course real beings. But not everything in nature is real — for example a shadow cast by some opaque body is an unreal entity: it cannot act on its own, it is mere epiphenomenon. On the other hand, the laws of nature are ideal, for they neither act, nor can they be changed. As to the surreal beings: if the God of Christianity existed, He would qualify as surreal being. However, it is a corollary of the proposed ontology that pure, nonembodied spiritual beings cannot exist. As a consolation I may add that we — persons, Selves, Egos — are such surreal beings.

No being exists in isolation, each is in many ways interrelated with others, thus making up what we call reality. Consequently, "being something determinate" means always being determined by something else. On the other hand, when adopting a genetic, evolutionary approach we can legitimately say that everything which presently exists, somehow had to come into existence, to be realized.

Therefore, borrowing from Max Scheler, we can introduce two important explanatory ontological concepts: of determination factors (those which all essential properties of any being in question depend on) and realization factors (those which the very existence of that being — and especially its coming into reality — results from). (3) In other words, every being can be equivalently characterized as resultant of the unique aggregate of its determination factors and its realization factors.

Certain realization factors become a constituent part of the being they assist to realize (eg. grain as realization factor of bread; it is not the case with bread's other realization factors such as energy and stove); these I will subsequently call the ontic fundament of a being in question, and the relation between them — the relation of founding.

Accordingly, determination factors of a given being will be called its ontic ground (and, respectively, the relation of grounding).

Ontic fundament is more self-existent than entity founded in it, for it can exist without existence of that entity, whereas the opposite does not hold. On the other hand, the ontic ground of some entity is more self-contained than the entity itself, for its determinations do not depend on the entity's properties.

Notice that an ontic fundament of something is itself some kind of being, and therefore has its own fundament; same holds concerning most of ontological grounds. Now, due to the fact that both relations of founding and grounding are transitive and asymmetric — and therefore ordered ones — orders of founding and orders of grounding are thus established.

Each being belongs to a certain order of founding and to a certain order of grounding. The place of a given being in its founding order determines its nature, while its place in its grounding order determines its essence. (4)

It is a direct mathematical corollary that both orders must have their first elements — the ultimate fundament and the ultimate ground. Now I claim that the ultimate fundament of any being, i.e. something absolutely self-existent, is always some material (physical) entity, whereas the ultimate grounding of any being — something absolutely self-contained — is always some ideal entity (for example a law of nature or value). (5)

A notion superior to that of determination factors is determination principle — determination factors are just instantiations of respective determination principles. Now my thesis is that there are four such principles, namely form, information, representation and sense (their definitions will follow soon).

All entities subjected to one and the same determination principle are of the same nature, thus making up a separate ontological type or — to use Hartmann's terminology — stratum of beings. The strata are epigenetically ordered. In other words, the general rule is that entities belonging to a higher stratum have some entities of the lower stratum as their "matter" or stuff they are made of. What is new in them is due to their "form".

Here is a brief description of subsequent ontological strata and their determination principles.

I. Stratum of inorganic matter. This is the only entirely self-existing stratum, the ontic fundament of everything. The determination principle here is form (in the sense of an arrangement of elements, or relations between them), for it is their form that determines the properties of material beings. (6) On the other hand, the realization factors here are another previously existing material beings (e.g. atoms in relation to chemical particles) and energy

(in the form of various interactions). Finally, the ultimate grounding here are laws of nature. (7)

2. Stratum of animate matter (organisms). The essential feature of all organisms is their ability to discriminate and select. Therefore it is information, defined as any detected difference of physical states or magnitudes, which is determination principle in this stratum. It is not laws of causation but relationships of structure and function that govern here. Contacts of any organism with its environment necessarily involve the exchange of matter and energy, but they are regulated by information. The mechanisms of inheritance, maintenance of equilibrium (homeostasis) and growth through negative and positive feedbacks are examples of such informational guidance of the functioning and development of organisms.

3. Stratum of psychical beings. To this domain belong creatures with a central nervous system (cns). The determination principle here is representation, i.e. a mapping of environmental circumstances in the cns. Contact with the environment here takes the form of responses to signals received, that is to energy impulses treated by the cns as representations of certain features of the environment. This proceeds as follows: physical impulses that act on appropriate peripheral receptors are transduced by nerve cells into collections of information, which in the cns are then processed and integrated to form representations of these impulses. These representations — treated subsequently by the cns as wholes — are then compared with its memory and, depending on the result of this comparison (and of current state of the drives), an innate or learned response follows. The chain of events that follows is not a cause-effect relationship, but a functional relationship guided by representations. (8) Instinctual behavior, reflexes, memorizing, learning, associations — all of these basic psychical phenomena and processes depend essentially on appropriate representations of states of the environment.

A control system able to regulate its behavior by means of such representations may be called psyche.

Due to the fact that the determination factor here is a representation of something, can animals' behavior be said to be cognitive? I do not think so. One can at most call it quasi-cognitive. Animals do not so much cognize, as they first record and then recognize what is similar to what was previously recorded. Sensual representations do not yet have the nature of perception of objects.

Such a cognitive apprehension of the object of representation is the sole prerogative of beings of a spiritual nature.

4. Stratum of spiritual beings. (9) This stratum comes into existence with the origination in the course of evolution of systems — one may call them spirits, which corresponds to the psychological categories of Ego or Self — capable to know that sensual states they experience stand for something else, and, consequently, capable to pass from them to what is represented, i.e. to grasping their sense. Thus the determination principle in the stratum of spiritual beings is not a passive representation in the cns of some features of the environment (or of a being's own organism), but actively grasped sense of such psychical representations. (10)

Sense of a representation is its ontic grounding — something more selfcontained which must be assumed for the representation to be what it is (namely the representation of something) — as apprehended by its subject. Sense, in other words, is the object of that representation. (11)

In consequence contact with external reality is accomplished here through understanding — i.e. grasping the sense of subjective representations — and the relation between the spiritual beings and the outer world takes on the form of the subject-object relationship. But we must be precise here: the aforementioned objects are not real entities themselves — they are entities only supposed to be real, but in fact they are irreal beings, founded in appropriate subjective representations.

It is precisely in grasping sense (i.e. the ontic grounding of subjective representations) that the cognitive transition from what is subjective to what is objective — the mysterious transcending power of consciousness which has so intrigued philosophers since antiquity — consists in. There is no actual passage to the real world here, everything takes place in the irreal world of sense. Between what is purely subjective (spiritual states and processes) and the real world there appears intermediate, transsubjective domain of sense and relationships of sense — the world of intelligibles. Its ethereal substantiality is very hard to ascertain, for both in practical life and in sciences people are outright realists and misconstrue the sense to be — pace Kant, pace Husserl — the objective reality itself. (12)

5. Stratum of intelligibles. We therefore have to distinguish the intelligible from the spiritual. Spiritual entities can be both subjective and intersubjective, but no more than that, whereas intelligibles are transsubjective. They do not exist on their own, they are founded in certain spiritual beings. But at the same time they do not reside in minds of persons — they transcend any mind and constitute their own ontological stratum. I call them intelligibles because they can be grasped through understanding only.

To further determine what the stratum consists of we must distinguish between our spiritual creations (e.g. languages, ideas or theories) and their derivatives which are no longer our creations. Consider the mathematical domain for example. What we can create, operate with and manipulate are just symbols or formulas (eg. numerals), not the objects they stand for. We cannot for example change any number, we can do it with numerals only. But when manipulating with numerals, which is a purposive behavior guided by some apprehended sense, the corresponding adjustments in the mathematical domain inevitably follow, for their objects are determined by the meaning of the symbols we use and their logical consequences. Numbers are thus derivatives, not creations. We do not create the outcome of multiplication, the outcome is unambiguously determined and inevitably follows once the operation has been defined — regardless of any computations done by mathematicians. To be what they are, mathematical entities, once defined, need not be cognitively grasped, made an objective of any conscious act. (13)

The same holds with regard to logical structures such as tautologies and other truth-preserving formulas — they are derivatives of our creations, but are not our creations. It is we who give meaning to words like "not" and "or", but that the formula "p or not p" is tautological is an objective circumstance independent of our will. (14)

All intelligibles are such derivatives of spiritual creations. In addition to the aforementioned logical structures and mathematical objects, ethical values, works of art and such entities as "atoms" or "electromagnetic fields", etc. — conceived as objects determined by the intensions of our concepts, that is as intensional objects — also belong here. Together they constitute the realm of logos and ratio.

There is no other being possible over and above the stratum of derivatives of our human spiritual creations.

### III

It is not difficult to show that the proposed ontology is consistent with the evolutionary thesis: In the series *form-information-representation-sense* each subsequent determination principle is an enriched variety of the preceding one. <sup>(15)</sup> We therefore need assume no preexistence of determination principles — they have been appearing sequentially in the course of natural history as a consequence of the appearance of systems capable of being directed by a given principle.

The above outlined ontology can also accommodate, in a consistent way, both theses of *monism* (compatible with the order of foundation) and *pluralism* (compatible with autonomous orders of grounding). One can be monist (genetic materialist) claiming that there is only one self-existing substance — namely physical matter — and at the same time one can advocate pluralism, claiming that there are several autonomous, irreducible ontological strata. <sup>(16)</sup>

## Notes

(1) In our century it was Nicolai Hartmann who assigned ontology the above envisaged role and who positively substantiated such a programmatic stance in his writings. My own proposal is in many ways inspired by his ideas.

(2) Because of limited space I can give its rudiments only here. More elaborate version is available in my book, *Autonomia ducha w perspektywie ewolucjonizmu*, Oficyna Akademicka 1995.

(3) To give an example: The properties of any plant — its phenotype — are determined by its genotype, a specific DNA pattern contained in the seed. DNA is therefore in this instance a determination factor. But for the seed to be able to germinate and develop into a particular plant, certain conditions must have been fulfilled: Appropriate substances had to be available in the soil, humidity, temperature and exposure to sunlight had to be within appropriate ranges, etc. All these are thus realization factors.

(4) Such placement of a given being within the two orders is something like its ontological "address" in reality.

(5) Notice, by the way, that we can thus rationally interpret Plato: the domain of the real being is determined by the domain of the ideal one, although it is not the latter which brings about the former: determination is not action, determination factors do not act, action is on a part of realization factors.

(6) It is thanks to this circumstance that *mathematics* is so indispensable and powerful a cognitive tool in all physical science, for it is a study of relations between pure, abstract forms, regardless of their substantiality, and in consequence may be applied to all fields manifesting some kind of *morphism* with mathematical domain, irrespective of their nature.

(7) Notice that laws of nature fall under the category of a form, for they are relations of a kind.

(8) An animal is shivering not *because it is getting cold, but to warm up*; shivering is a response to the received information about the dropped temperature, not an effect of that dropping — the animal's brain informed by appropriate receptors on lowered temperature launches a program ("shivering") that counteracts its lowering. We have an instance of negative feedback here.

(9) I prefer the term "spiritual" to "mental" here, because "mental" can denote the above considered Psychic occurrences also.

(10) And, furthermore, the sense of specifically spiritual representations such as *names which are representations of representations*, actively created by the persons themselves.

(11) Describing sense as the ontic grounding of spiritual representations is too narrow an account yet, for there are spiritual phenomena which are not representations at all — e.g. *acts and attitudes*, which do not stand for anything else — but which also can have sense, i.e. their subjectively grasped ontic grounding. For example, the sense of some motor behavior is the *intention* of its subject, the sense of this intention in turn is the *goal* (that is, non-existing yet, but imagined future state of affairs) whose attainment the behavior serves, while the sense of this goal is the *value* which the goal is to materialize. Values are the ultimate grounding of spiritually motivated behavior.

The category of sense thus applies to all spiritual phenomena, cognitive as well as expressive.

(12) This is exactly why Husserl proposed "phenomenological bracketing" as a tool to neutralize such "natural attitude". We reached a similar conclusion by a simple, ontologically based consideration, without any resort to such extravaganza as transcendental reduction.

(13) That's why *discoveries* in math are possible.

(14) Notice, by the way, that the above formula is tautological only on the assumption that our logic is to be *two-valued*, which is the same as to say that our definitions of logical connectives are determined by (grounded in) the classical concept of truth, and ultimately in the realist stance that there is an independent objective world to which our language refers. No doubt, logic is valid independently of what the world is like; but to be valid, the existence of some extra-linguistic reality must be taken for granted. Realism is thus the only position consistent with our being creatures governed by the category of sense. Only on the assumption that there is some objective reality our chasing after the ontic ground is rationally justified.

(15) Where there is form there is difference as well, and information is any detected difference. 2). Representations are aggregates of pieces of sensual information, treated by the CNS as wholes. 3). Sense is realized through a network of representations. It is neither a subjective mental state nor an objective reality itself. Rather, it is certain model of reality as presented by representations we use.

(16) Monistic thesis means *genetic* materialism, which is *not* a reductionist stance, and which must be distinguished from the *methodological* variety, namely *physicalism*, which is reductionist.