

The Many Faces of Psychoontology

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Abstract Psychoontology is a philosophical theory of the cognizing subject and various related matters. In this article, I present two approaches to the discipline—the first proposed by Jerzy Perzanowski, the second by Jesse Prinz and Yoram Hazony. I then undertake to bring these into unity using certain ideas from Husserl and Frege. Applying the functor *qua*, psychoontology can be described as a discipline concerned with: (a) the cognizing subject *qua being*—this leads to the question: what kind of being is the subject (is it an object?, simple or complex?, a process?) and what makes him/her/it possible; (b) being *qua cognized*, this leads to the question: under what conditions can we access the world? Since the notion of being *qua cognized* might seem peculiar, I present its context and discuss it in detail in the last section.

Keywords Cognition · Cognitive science · Hazony · Perzanowski · Prinz · Psychoontology · Qua

1 Introduction

Nearly 20 years ago Jerzy Perzanowski coined the term “psychoontology” to describe a special type of applied ontology focusing on human cognition. Psychoontological issues are of course not new and have been the object of philosophical enquiry since antiquity. Nevertheless the last decades of the twentieth century saw a rediscovery and re-contextualization of psychoontological problems with the emergence of interdisciplinary cognitive science. It is precisely as the ontological basis and ontological contribution to cognitive science that Perzanowski regarded psychoontology .

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The idea has recently reappeared in a context other than that of Perzanowski's work. Jesse Prinz and Yoram Hazony developed the term "psychoontology" for the purposes of an interdisciplinary (and to some extent experimental) conference—the Psychoontology Conference—which took place at the Shalem Center in Jerusalem in December 2011.

It is not about who was first. Since the meanings Perzanowski and Prinz/Hazony attach to the term differ in certain respects, although all three of them agree that psychoontology is needed in cognitive science, there arises an interesting metaphilosophical question: what is the relationship between these two accounts of psychoontology and is it possible to synthesize them? I will investigate and try to answer these questions in this paper.

I will first present Perzanowski's conception of ontology, and in particular of psychoontology. I will then propose a number of ways of extending the idea. Next, I will make some remarks about Prinz and Hazony's conception. In the last section, I shall argue that the two approaches can be combined, but only given a specific conceptual basis.

2 Perzanowski's Conception

2.1 Ontology

With regard to ontology, and especially its logical variety, Jerzy Perzanowski is definitely one of the most outstanding thinkers of our time. Providing a brief outline of his general standpoint and specific conceptions is not an easy task (Sytnik-Czetwertyński 2012 is a good introduction), however, it appears that his distinctive method may be of key importance here. On the other hand, calling this method "distinctive" is obviously misleading. As Perzanowski himself emphasized, it is the way philosophy and science have been conducted since antiquity. It is simply *the method of analysis and synthesis*. Analysis is decomposing complex objects into simple ones; synthesis is composing the complex from the simple. In order to demonstrate the generality of the idea, let me quote an extensive passage from Perzanowski:

Everything is both a product of the decomposition (analysis) of a given object into simpler objects and of the synthesis (composition) of that which is composed of simpler components. In order to come to know a given object, it is necessary to reconstruct the process of analysis and synthesis, in the one and the other direction.

Such a thought lies at the basis of Greek philosophy. It emerges with Empedocles and Anaxagoras. It is present in the philosophies of the Pythagoreans, of Democritus and of Plato. From them it passed into European thought where it has settled for good.

(...)

It is with the Method of Descartes that we see a certain renaissance of the paradigm of analysis and synthesis, the idea lying at the basis of his thought.

Taking analysis as primary and synthesis as secondary and considering both as having conceptual and natural forms, Descartes made them the basis of his science. This is clearly stated by him, both in his “Discourse on the Method” and “Rules for the Direction of the Mind”.

The full flowering of the idea, both in science and in philosophy, took place in the century after Descartes, a century dominated by the two giants, Newton and Leibniz.

In mathematics, two fruitful results, of many which could be given, were the Differential and Integral Calculi, of which the first consisted in the analysis (breaking-up) of a given field and the second in integration (consolidation), this being the appropriate form of synthesis. The calculi conjugate with one another and are dual.

In the 18th century, the method brought about successes in the newly emerging discipline of chemistry, resulting in its becoming in the following century the model on which the science was built (Perzanowski 2003, pp. 167–168).

The world we live in, the world we perceive, is our *datum*. The world is complex and consists of complexes. Thus simples (substrate or substance) are not given, but rather come into view upon analysis. Any particular kind of analysis reveals the appropriate simples.

If we adopt Jerry Fodor’s (1975) well-known distinction between causal and conceptual stories of the world, ontology might be described as the most abstract conceptual story. According to Perzanowski, it is the most abstract *conceptual analysis and synthesis*. We also arrive at the idea held by rationalists since the time of Plato, namely that the conceptual story gives us a very special insight into the way the world is constructed. The reason for this is clear: note that when we obtain simples in the way of analysis, we can “reconstruct” the complex *datum* from which we obtained them (to find out *how* it is made), as well as conceptually “construct” other possible complexes. Ontology, *ex definitione*, involves the investigation of possible scenarios. It is thus deeply modal. Possible scenarios are nothing other than alternative ways of combining simples. As such, ontology is able not only to ask about how something is composed, but also *why* in this way rather than another—to ask about *ratio*. And this is probably the most distinctive feature of *conceptual analysis and synthesis* (see Piłat 2007)—it enables us to consider constructs known today as *possible worlds*.

All conceptual stories enable us to ask both *how* and *why*. Ontology, however, employs the most abstract concepts, and in doing so, as Aristotle believed, sheds light on the most fundamental features of being. Note the subtle correlation established in the “Metaphysics”: the higher we “ascend” in abstraction, the deeper we “descend” into being.

Perzanowski writes:

Ontology is the theory of what there is, the theory of being. It considers the full ontological universe, all items that are possible, describing and classifying them and searching for the principles of this universe, principles of taking together the plurality of ontic objects, particular beings, into one – the Being.

Thus, two questions govern ontological investigations: what is possible and why? The second question, concerning the being's principles, may be strengthened to the deepest – last in the logical order – question: how that which is given, or rather what there is, is possible? The question about principles of being, i.e., general laws of nature, plus the question: what makes possible what there is and renders impossible what there isn't?

Because of its matter and problematics ontology is the most general discursive discipline. It is the general theory of possibility. By the nature of its questions it is also very modal (Perzanowski 1990, p. 23)

Hence ontological questions take the following form: for any given x , how is x possible? In other words, what makes x possible?

We obtain specific domains or applied ontologies by substitution of x with specific variables. For instance, the fundamental question of metaphysics is: for any real (existing) x , how is x possible? In other words, how is reality possible? What makes reality possible? Following Roman Ingarden (1964), Perzanowski draws a distinction between ontology and metaphysics:

Ontology is the general theory of the possibility, i.e., the theory of the realm of all possibilities – the ontological space. Metaphysics, on the other hand, is the ontology of the world.

The world is the realm of existing items (Perzanowski 2004, p. 93)

Moreover, we have specific ontologies such as the ontology of thought, the ontology of values, the ontology of language, and the ontology of the psyche-psychoontology.

Concluding this sketchy outline let me state that ontology is divided into three parts. Perzanowski writes:

Ontics is devoted to the selection of ontological problems and notions, their differentiation, classification and analysis. Doing ontics we construe the conceptual net of a given ontological theory, i.e. its categories.

Ontomethodology concerns ways of doing ontology, methods and types of ontological constructions as well as principles of choice between ontological statements and theories.

Ontologic is a logic of the ontic realm. It is an investigation of ontological connections, concerning particularly logical relations between pieces of ontic information. Also it is a theory of the foundation of ontic relations.

Ontologic considers the organization of the ontological universe, trying to describe its mechanism (Perzanowski 1990, p. 24)

In this article, I will be chiefly concerned with ontics.

2.2 Psychoontology

The characteristic questions of psychoontology are: *How is a psyche possible? How is cognition possible? How are soul-body or mind-brain connections possible? How is consciousness possible?*

In order to answer (and in fact also to *ask*) such questions, we need a suitable conceptual framework, thus a suitable *psychoontics*. Perzanowski writes:

Take, for example, the second question on our list: How is cognition possible? To have understood it we need, first of all, *categorization*. Cognition is:

- a relation (of which arity?, which objects are related?);
- a process (of what type?);
- a transfer or processing of information.

What more? Now it is clear that a proper framework for the investigation of cognition must include at least all the above items: relations, their arguments, i.e. subjects and co-subjects (things? situations? facts? persons? institutions?), processes, transfer itself, and information. By such a descriptive and conceptual analysis we obtain a quite complicated domain which is organized in some way. Its investigation is a business of the cognitive sciences, including a suitable applied ontology (Perzanowski 1994, p. 288).

In order to grasp the significance of such conceptual decisions, and hence also to some extent the significance of psychoontology in general, we will do well to recall Ryle's (1949) and Searle's (1992) claims concerning the conceptual decisions of Descartes which precipitated the emergence of the mind-body problem in its modern version. Wittgenstein's (1953) critique of philosophical discourse, suggesting that there is a specific medium (the *interior*) in which our mental lives occur, is also relevant here. Recall any argumentation for or against reductionism; it seems that any reasonable and plausible discussion about whether the mental can be reduced to the physical (or vice versa) requires: (i) certain conceptual decisions (mental *what*—processes? objects? states? events?; similarly—physical *what*?); (ii) methods to measure the success of the reduction (let me note complete chaos in this department); (iii) a logic circumscribed by the concepts applied—the manner in which these interconnect. But before we ask whether reduction is a *fact*, we must first prove that reduction is *possible* (recall Davidson's (1970) thesis that although the world is entirely physical, mental conceptual schemata cannot be “translated” into physical conceptual schemata—what status does the materialist claim have then?).

3 Some Extension of Perzanowski's Conception of Psychoontology

The foregoing considerations placed emphasis on one of the psychoontological questions posed by Perzanowski: *what makes cognition possible?* From this perspective they may be considered an extension of the original idea.

Let me first note that if we ask this question, our interest should be directed towards two domains, as it were, although without any Cartesian presuppositions: (a) towards the domain of the *cognizing subject's* previous knowledge, activities and tools (in some contexts we can call it the subject's “interior”); (b) towards the *cognized* (in the case of perception we could say—“external”) objects. The second

direction has been surprisingly neglected (thanks to David Hume). In the dominating Anglo-American philosophy of mind and in epistemology we find detailed and fruitful discussion of the basic feature of mind—intentionality, the mechanisms producing representations, language and the dependency of representations on language, etc. The *accessibility* of (external) reality is either considered a fact *or* denied.

Perzanowski's ontology however is not about facts *as facts*—it is about possibilities, hence, *inter alia*, about the possibility of *certain* facts. Thus psychoontology cannot determine whether we *really* can attain (objective, external) reality. Psychoontology aims to establish the *conditions of possibility* of any cognitive acquaintance with the real world (regardless of whether it is a fact—idealism must here be taken seriously as one of the possible scenarios). Let us once again ask: *how* is such acquaintance *possible*? *What* makes it *possible*? The modal character of these questions is not just a manner of speaking.

In seeking to answer psychoontological questions we must account for that which *makes* subjective *access* to real objects *possible*, but also that which *makes* these objects *accessible*. In other words, how *subjects* should be constructed in order to be able *to gain access* to the world (here the senses, concepts, logic, etc. come into play), and how *the world* should be constructed in order to be *open*, so to speak, to cognitive attempts. I here follow, amongst others, Gurwitsch (1974) and Póftawski (1983), who have stated (in reference to Edmund Husserl) that investigating the possibility of knowledge, and above all perception, we must ask not only about the cognizing subject but also about the cognized things *in the aspect of presentation* or *in the aspect of accessibility*—the real objects, processes and states—however not *as such*, but *as standing in relation to the cognizing subject*.

In this context we could say (generalizing) that psychoontology investigates the *cognizing subject qua being* and being *qua cognized*, whereas general ontology, as Aristotle rightly described it, focuses on being *qua being*. The functor *qua*, although rather neglected in modern logic, is of great importance in ontology as well as cognitive science, which has been demonstrated by authors such as Poli (1994, 1998), Bäck (1996) and Fine (1982). However it won't be investigated here (see Werner 2010)—I take it for granted.

Psychoontology is naturally linked to general ontology which examines concepts such as being, object, quality, relation, process, etc. On the other hand, it asks the questions of epistemology, where concepts such as cognition, knowledge, perception and truth are investigated. Thus psychoontology may be regarded as something in between the ontology of being (general ontology) and epistemology.

Let me explain the proposed notions. Dealing with the cognizing subject *qua being* means locating the subject among other beings as well as determining the character of its nature and structure (whether it is an object, a process, etc.; whether it is a compound of certain parts—in the classical model, mind and body—or a simple; how these parts or properties interconnect; what tools it has at its disposal, etc.). This part is usually considered a core issue of the philosophy of mind, and it is emphasized by Perzanowski when he asks “How is mind (psyche) possible?”.

On the other hand, an investigation of being *qua cognized* must focus on:

- Representation—how our cognitive apparatus determines our way of thinking or perceiving the world, how we, in a sense, picture the world or how we grasp the world;
- Presentation (which makes representation possible)—how our cognitive apparatus and location (being *here*, in *this* particular context, having *this* particular viewpoint) determine the way in which the world is accessible to us, the way in which the world *shows itself*;
- The *cognizable* world (which makes presentation possible)—how the real world must be constructed in order to be accessible, intelligible.

These are the three general questions regarding being *qua cognized*. The first has been widely investigated, although there is some confusion about where psychology ends and philosophy begins. The second and third have in my opinion been neglected, especially in the philosophy of mind and the philosophy of perception, although they are more primary philosophically. This is because only the first can be turned into an empirical question while the latter two are purely ontological or—as someone might argue—transcendental. This means that their focus is on the *conditions of possibility* of empirical data, hence, *ex definitione*, they are pre-empirical. The second question is crucial in Husserl’s phenomenology, but even there the third is absent for some serious reason. I will return to these points later.

4 Prinz’ and Hazony’s Approach to Psychoontology

The idea of psychoontology as proposed by Jesse Prinz and Yoram Hazony has not been previously discussed in publications. As already mentioned, the term was coined for the purposes of a conference and, unless I am wrong, the intention was to come up with a more precise idea in the course of discussions. Nevertheless we can find some basic components or at least a sketch of the idea. My proposal is to work from these.

“Psycho-ontology” can be defined as the investigation of the relationship between human cognition and features of reality: We do psycho-ontology when we study the way perception, thought, and emotion play a role in helping constitute the world we inhabit. But psycho-ontology can also move in the opposite direction: It can involve studying the fundamental features of reality in order to gain insight into how human cognitive processes work (Prinz and Hazony 2011).

In other words, psychoontology answers questions like:

Can the study of the human mind, including recent work in cognitive science, teach us anything about the fundamental character of reality? Conversely, can the study of the fundamental features of reality teach us anything about the character of the human mind? (Prinz and Hazony 2011)

So the question is: *what knowledge of the mind we can derive from knowledge of the fundamental structure of reality, and what knowledge of the fundamental*

structure of reality can we derive from knowledge of the mind? The first part seems quite clear. Philosophers investigating this issue have included Plato, Wilhelm Gottfried Leibniz, Ludwig Wittgenstein (the “Tractatus” period) or more recently David Chalmers, Perzanowski and Roger Penrose. However, the second component of the proposed psychoontological question is not so precise. What does it mean that some knowledge of the fundamental features of reality is derived from knowledge of the (conscious, cognizing) mind? Let us consider some possibilities:

- A scientific (hence objective) investigation of the brain, its properties, cognitive mechanisms such as information-processing, consciousness, vision, etc. can reveal some important properties of (physical) reality—we may here cite empirical studies in cognitive psychology (where “reality” refers to the world around us) as well as the ideas of Penrose (where “reality” refers to the fundamental physical level).
- An investigation of the *conceptual* tools used by the mind can reveal some important features of reality (for example Plato—this is explicitly described by Socrates in the *Phaedo*, though in fact most varieties of ontology and philosophy in general apply this way of thinking!).
- A first-person analysis of the conscious mind (*my* mind) can reveal something important about reality, for instance its components and origin (René Descartes’ substance dualism and proof of the existence of God).

Note however that the second point is not exclusive to psychoontology, since, as I stressed earlier, this is the presumed belief enabling us to philosophize. Having been cleansed and cleared of empirical evidence, philosophy must rely on conceptual analysis. At the same time the first point cannot even be restricted to philosophy as such, since this kind of investigation exceeds the limits of philosophizing. On the other hand, the third point would be too exclusive, neglecting the whole of non-Cartesian thinking, for example the Aristotelian tradition. Thus a Cartesian approach *properly belongs* to psychoontology. From this point we can however derive an interesting “negative way” (like in apophatic theology) *towards* and *through* psychoontology:

- A first-person (Cartesian), purely conceptual, or scientific (practiced in contemporary cognitive psychology) analysis of the conscious mind, for instance of the mechanism of perception or the nature of representation and categorization, can reveal something important about what reality itself (if there is any) *is not like* (Descartes again, John Locke, David Hume, Immanuel Kant in a standard reading, Henri Bergson, more recently Nelson Goodman, Hilary Putnam, and many others, including Jesse Prinz).

Thus the question arises: *which world* is that of which we can derive knowledge from the knowledge of the mind? Applying the classical distinction, is it the real world (*reality*) or merely its *appearance*? The “negative way” points to the study of mind as capable of yielding knowledge of the appearances produced by categories, perceptual mechanisms, emotions and expectations, and only a negative knowledge of reality. In other words, psychoontology deals with the way we construct the world we perceive.

However, we have to admit that the very distinction *reality—appearance* is a psychoontological problem, since by appearance we mean the appearance *for us*—conscious subjects. The “negative way” presupposes a *strong* differentiation between appearance and reality: appearance *is not* reality, reality is, in a sense, hidden behind appearances. On the other hand, reality is outside my mind—external, whereas appearance, as the result of cognitive processes, is an internal representation. But this is not the only possible way of thinking about the relation between the world we perceive and (a presumed) reality—recall for instance the whole of the Aristotelian tradition. There is no reason why this *particular* way of philosophizing should be generalized and treated as implicit in psychoontology *as such*.

5 Combining the Two Approaches

According to Prinz and Hazony, psychoontology answers questions like: what knowledge of the mind we can derive from knowledge of the fundamental structure of reality, and what knowledge of the fundamental structure of reality can we derive from knowledge of the mind?

The first question fits perfectly into Perzanowski’s account, which I described as an investigation of the mind *qua being*, although a suitable generalization is required. General ontology gives us models of the fundamental structure of *being* (not just *real being*) and psychoontology asks what kind of being the subject is and *what* in principle *makes the subject possible*. Two remarks however should be made at this point.

Firstly, *psychoontology* must be a true *ontology* and not anything else. Obviously, contemporary investigations in this field cannot ignore the achievements of science. Nevertheless ontology must be equipped with its own conceptual apparatus and method. According to Perzanowski, this method is phenomenological (in the sense of Husserl and Ingarden) analysis informing formal (logico-mathematical) analysis followed (in a suitable ontological calculus) by synthesis. Science should also inform ontology, but ontology, due to its generality and abstractness, cannot be replaced by science.

Thus if we apply the Aristotelian view, then the most fundamental features of reality mentioned by Prinz and Hazony are encapsulated by the most abstract notions of *first philosophy—ontology*.

Secondly, the project of psychoontology, the ontology of the cognizing subject, considering the subject *qua being* (among other beings) to some extent goes against a very distinguished tradition. Perzanowski writes:

In his second philosophy, Kant succeeded spectacularly in breaking away from the “fact-seeking” type of inquiry that had characterized traditional metaphysics, leaving the exclusive rights to form of fact-orientated inquiry to researchers in the various areas of natural science. In exchange, he promoted metaphysics as inquiring into human cognition and its results (Perzanowski 2003, p. 169).

If one thing is certain, it is that right from the emergence of Kant's second philosophy and thanks to it, the close connection between philosophy and science was broken. The gap widened gradually becoming in some philosophical schools more of a gulf. Recently, the gap has narrowed and is expected eventually to close (Ibid., p. 170).

However, the Kantian gap between metaphysics or more generally ontology considered as a discipline investigating cognition—and science, investigating reality, reflects the Cartesian gap between cognition and cognized reality—between the subject and the so-called external world. As a result of Descartes' six meditations we are faced with the most fundamental problem of modern philosophy (alien to medieval and ancient thinkers), namely whether it is possible to attain external reality *via* internal ideas, impressions, representations, etc. In this context, psychoontology not only brings ontology closer to science and takes up the idea of ontology as an investigation of the world, but also puts the subject back *among* beings, *in* the world.

This brings us back to the problem of *deriving knowledge of reality from knowledge of mind* and the widely practiced “negative way” described above. As I pointed out, a very strong distinction between appearance and reality is presupposed. This, however, is exactly the way of thinking against which the project of psychoontology as such is directed—considering the subject *qua being* we cannot at the very beginning place a wall between the subject and (other) beings. Any thesis regarding the relationship between the subject and the rest of the world (whether a relationship is possible and how) must be *the result* of psychoontological study and not a presupposed belief. Thus the “negative way” is not the right approach. And, consequently, psychoontology is not (at least not necessarily) about how we *construct* the world around us.

In this context, I propose to state that *deriving knowledge of reality from knowledge of mind* means studying being *qua cognized*. This is not just a linguistic trick. Here we do not presuppose anything about the relation between being *qua being* investigated in general ontology (as Aristotle proposed) and being *qua cognized*, because this relation is exactly the issue under investigation.

As I pointed out above, the notion of being *qua cognized* refers to (i) representation; (ii) the conditions of possibility of representation (namely—presentation); and finally (iii) the conditions of possibility of presentation (namely—*cognizable* being). The latter establishes the link between psychoontology and (general) ontology—after all, we should ask what qualities being should have in order to be *cognizable*?

6 Psychoontics

It should be clear that the appropriate settlement of psychoontological questions, though without *petitio principii*, necessitates some pre-psychoontological work, namely basic phenomenological analysis which belong to or at least leads to psychoontics. Hence—and this is not a surprise if we look at any other domain of

enquiry—in order to define (from a metaphilosophical standpoint) the psychoontological domain, we have to practice a bit of psychoontology first.

Since the notion of being *qua cognized* may seem obscure, I am going to focus on it in this section.

Our *datum* is cognition. After Descartes, we tend to analyze it in a relational fashion, thus in terms of two different, yet related beings—the idea (or sense-datum) located in the subject and the real item located outside, in the external world. The notion of idea may be replaced by the contemporary category of representation. The relation mentioned has two sides, as it were, or two aspects. As a relation directed towards the subject it has a causal character and is called sensation; as a relation directed towards the object it might be called representing, pointing to, informing, denoting, or even picturing, etc. This is a realistic approach. Some might argue, however, that this relation is not single and two-sided, but is in fact two relations, each capable of occurring without the other. We are thus in danger of having ideas which do not correspond to any real item outside our minds.

Is the causal connection enough to substantiate realism? The problem is that sensation is believed to be, as it were, atomized. Cognitive psychology as well as optics teach us that we do not receive the form of the perceived object (as Aristotle thought) but rather a “soup” of inputs that might be called atoms of experience. From these we reconstruct the complex beings called representations. Representations and the knowledge based on them is (at least from the traditional perspective) evaluated as either true or false. In other words, although truth is an ideal which is hardly definable when speaking of the empirical domain, we nonetheless expect our representations somehow to fit the real world—to provide us with a more or less correct grasp of the world around us. Now, the causal aspect of the cognitive relation, as something purely physical, does not belong to the sphere one may call—after McDowell (1994)—*the space of reason*, while the representational aspect does belong there. How does it then come about that physical inputs are transformed into the matter of thought and reason? The precise mechanism is not our concern here. What is, is the question asked, amongst others, by the phenomenologist Póltawski (1983) and Ben-Zeev (1988) in their critique of the Cartesian way of thinking: how can something essentially senseless or *meaningless*, namely physical atomized inputs, become a base for *meaningful* beliefs and realistic *knowledge*?

It is reasonable to conclude that analyzing cognition in terms of internal and external objects, causally connected, is not enough to answer the psychoontological question—*how is cognition possible*? Together with McDowell we should insist that what we receive in perception belongs to the space of reason from the beginning; in other words that it is not put into this space by our action. However, against him we may still claim that “the given” in some non-Cartesian (and non-empirical) sense is needed as long as we are to remain within the bounds of realism.

One possible addition to this Cartesian view comes from Gottlob Frege (1892), although it has not been developed philosophically. In addition to ways of grasping or representing objects by concrete subjects (*Vorstellungen*) we need to distinguish the way in which an object is *intelligibly given*, the way in which an object presents itself and hence makes itself intelligible—a way which Frege calls “sense” (*Sinn*).

As Ignacio Angelelli (1967) and Bogusław Wolniewicz (1977) have pointed out, *senses are aspects of things*, and *aspects are presentations*. These presentations, in a sense, wait for a subject to actualize them *as* the senses of names, and—more generally—*as* senses of cognition. In this way aspects are the condition of possibility of cognition.

Similarly, Edmund Husserl (1913) introduces the notion of the noema of an intentional act—the intended object existing in the world; however not this object as such, but rather this object *as intended*. This view goes against the popular interpretation proposed by Føllesdal (1969), according to which the noema is an abstract entity, a cognitive tool enabling us to find the appropriate objects in our environment. It is akin to linguistic meaning or content. We might say metaphorically that the noema in this case is the cognitive framework imposed on an object.

In the spirit of the “traditional” interpretation (see Gurwitsch 1974), I believe that the noema is *not* a cognitive framework imposed on an object and it is *not* the object alone, but rather a *particular object within a framework*.

Thus, instead of the Cartesian and Humean psychoontic dichotomy

- COGNITION—(EXTERNAL) BEING

or

- INTERNAL FRAMEWORK—EXTERNAL WORLD

we have a triad

- INTERNAL FRAMEWORK—THE WORLD “*WITHIN THE FRAMEWORK*”—THE WORLD

or more generally:

- COGNITION—BEING *QUA COGNIZED*—BEING

The introduction of this third element, the great achievement of Frege, Husserl and some of their followers, re-establishes the traditional psychoontological problem (*how is cognition possible*). In other words, it sheds a new light on the old issue and brings down the Cartesian wall between the internal realm of the subject and the so-called external world. On the other hand, it seems that this new light is just a rediscovery of some of the ideas of Plato, Aristotle and St. Thomas Aquinas. Recall for example Aristotle’s (1986) discussion with relativists who claim that there is something white as long as someone is looking (*De Anima* III 2). The white object (not the white sense-datum) ceases when nobody is perceiving it. Aristotle answers that they are right as regards perceived objects *in actu*, but at the same time they are wrong as regards these objects *in potentia*. This means that the wall in front of me is actualized *as white* by me, but *not* that it is made white by me. Hence the object *qua perceived* is the object *actualized in perception*. But this whiteness rooted in the wall is not some secondary quality or impression in my mind—the potency as well as its actualization inhere in the object, not in my mind. Perception itself is here understood in a very interesting way—it is not just a causal relation with external being, but a manner of actualizing, hence a manner of forming

(since *act* equals *form*) being. The form in the mind and the form in the object *qua perceived* is the same (we don't have two similar forms but one form—this is why representationalism is not the view held by Aristotle).

Let me illustrate the need for the notion of being *qua cognized* in yet another way.

Bocheński (1992) stressed that in conducting ontology we must never start from the subject. Ontology must be object-oriented if it is to yield objective (scientific) knowledge. On the other hand, cognitive psychology informs us that in many respects the spectacle of the world depends on our cognitive apparatus. This dependence is a *datum* of ontological analysis and cannot be ignored. Meanwhile, according to Putnam (1988), speaking of objects and properties independently of a particular conceptual scheme makes no sense and leads to idealism. Surprisingly, both of these brilliant philosophers have a great concern for realism, while adhering to seemingly opposite views.

Thus indeed psychoontology lies in between ontology, epistemology and, in addition, phenomenology. Bocheński is right (and consequently Putnam is wrong) in saying that we cannot depart from objectively existing reality (if there is any) and philosophically investigate—in Cartesian, Humean, Kantian, or any other such fashion—the subject and its special cognitive apparatus *alone*. But he is wrong (and consequently Putnam is right) to ignore the existence of the subject and its apparatus. We nonetheless need a suitable link between the study of reality (if there is any) and the study of the subject—by this I mean psychoontology with its investigation (of course using specifically philosophical methods not borrowed from other disciplines) not of reality as such, nor of the isolated or closed subject, but of the subject *as a part of the world* and reality *as standing in relation to the cognizing subject*. In other words, the subject *qua being* and being *qua cognized*.

There is however one reason why the above triads are not truly Husserlian and why psychoontology does not belong to the transcendental tradition. Husserl strongly underlines that the notion of the world without any appeal to cognition, the world *alone* (the world *in potentia* of being cognized) makes no sense (if Zahavi 2003 is right, then Husserl's transcendental idealism is quite similar to Putnam's internal realism). At the same time, he stresses that the way in which the conscious subject is given to himself is quite unique and differs from presentations of the world (it does not depend on perspective and is not fragmentary). This is why the subject *alone* can be investigated, while the world *alone* cannot, and the object *qua cognized* is regarded as determined wholly by the cognitive apparatus of the subject. It makes no sense to speak of the object-oriented determination of presentation. Psychoontology according to Perzanowski does not accept such a limitation. Subject-oriented as well as object-oriented determinants of being *qua cognized* must be taken into account along the same lines. And both are highly hypothetical, since subject's special way of being given is also problematic. To see that this is so we need look no further than some of the theses from the *Philosophical Investigations* of Ludwig Wittgenstein (1953).

This, in short, is the basic psychoontics which allows us to establish psychoontology as a discipline, an applied ontology. Its basic concepts are: the

cognizing subject *qua being* and the triad: being—being *qua cognized*—cognition, elaborated in this section.

As for *psychoonto\logic* there are two formal approaches which come to mind once we have established ontics in the proposed fashion.

Being *qua cognized* is *made possible* by the occurrence of the cognizing subject on the one hand, and of the cognized object on the other. Conversely, the occurrence of being *qua cognized* makes cognition (a series of cognitive *acts*) possible. Hence a formal theory of such modal “makings” is needed and is indeed at hand (see Perzanowski 2004).

The word “qua” has been used as an important functor. Obviously then, an appropriate theory of qua—so called “qua-theory”, traditionally known as the “theory of reduplication”—is also needed and also available.

7 The Psychoontological Level

It may be argued that psychoontology studies a certain distinct level or stratum of reality. An idea of this kind appeared in the work of Heinrich Herre (2010)—a detailed introduction to so-called General Formal Ontology (GFO), i.e. the most general discipline concerned with the ways in which we conceptualize the world. The conception belongs to a current of thought popular today, within which ontology is regarded as a part of so-called knowledge systems. The term psychoontology is, however, not used directly in this context.

GFO is a realist theory, yet the type of realism it stands for is regularly opposed to another position, also realist, according to which ontology in the proper sense is to represent the universal order of the world without, as it were, accounting for concepts. We read:

Good ontologies are representations of reality. A good ontology must be based on universals instead of concepts (Herre 2010, p. 303).

Herre rightly notes that it is impossible to think of a representation that does not employ certain concepts to capture the world. It is therefore necessary to consider the realist belief that ontology and the knowledge system as a whole reflect the order of the real world in conjunction with the fact that this inevitably occurs within the framework of man-made conceptual schema. For this purpose, Herre postulates, amongst other things, the existence of certain *invariants* in the world. Information about these invariants is contained in *universals* which have an objective existence, i.e. exist independently of the mind. On the other side there are individual people who use *words*, and these words are held within the framework of society to stand for certain *concepts*. Although produced by specific communities, *concepts are intended to represent universals*.

Considering the further course of Herre’s reflection it may be noted that each of the abovementioned entities functions on a certain *level of reality*. In other words—each of them produces a certain stratum of the world.

Three such basic levels are usually distinguished (see Poli 2001): the material, the mental-psychological and the social. Human beings function on all three of

them, which, on the one hand, gives rise to an interesting problem of how these levels interconnect, and on the other, of how they are separated (for example, it is obvious that the physical and mental level come together within a living human being, yet it is equally obvious that they differ). Each of the levels is *conceptualized in a different manner*. Our conceptual networks are meant to give an adequate picture of the order (or certain fixed qualities—invariants) obtaining at each given level.

It is also in terms of levels of reality that Herre describes cognition. We read:

We assume that there is a physical level, denoted by PhysW, that is completely independent from the subject. Then there is the phenomenal world, denoted by PhenW, which can be immediately experienced by perception.

Perception can be understood as realizing an immediate connection between the subject and the material, subject-independent, objective world. Natural concepts, based on perception, are the most primitive ones and additional concepts are constructed from them. The construction of more complex systems of subject-object interrelation, as, for example theories, increase the distance between the subject and the perceived material world; on the other hand, they provide a deeper understanding of the world. One may think of several ontological layers which connect the subject with the independent reality. We consider the layer of perception as the mediator between the subject and reality and stipulate that the phenomenal world belongs to the material level (ibid. pp. 305–306).

In this approach, the object *as perceived, as thought, or more generally, qua cognized*, is the building material of a new level of reality which, as it were, mediates between the physical (i.e. that which is wholly objective) and the mental (that which is fully subjective). There thus exists a certain level of reality that one could call psychoontological, since psychoontology could, precisely, occupy itself with its categorization. One might even speak of several such levels. The important thing about this conception is that the psychoontological level *is* a level of *reality* and not something separate from it—a self-contained world capable of existing without it (as in the Cartesian tradition).

So long as we are concerned with basic psychoontics which gives us the possibility of defining the object of psychoontology we cannot draw any far-reaching conclusions. From this point of view, a description of cognition in terms of levels of reality—where being *qua cognized* essentially constitutes a certain layer of being studied by psychoontology—cannot be ruled out or disregarded. Although on the other hand, from the standpoint of *basic* psychoontics, this interpretation goes too far. For example, there is no sufficient reason to claim that the fundamental level of reality is physical in nature. A priori, we might as well opt for the Spinozian model according to which the physical and mental levels are superimposed over something even more basic. Or we may hold, with Leibniz, that the fundamental level in question does indeed have something of a quasi-mental nature.

Let me be permitted, however, to make a number of remarks exceeding the scope of basic psychoontics. If we distinguish a physical level (PhysW), a mental level (MentW) and a social level (SocW), we still have to determine where the

psychoontological level (PschOnt) should be placed. For there is no reason to suppose that PschOnt merely effects a mediation between MentW and PhysW, since to an equal extent it can be found to mediate between MentW and SocW (entities belonging to SocW are also an object of cognition). And yet if a certain hierarchy should obtain between these levels, then PschOnt cannot be located in between PhysW and MentW, since it appears to be a superimposition *over* MentW. Still, it cannot be over MentW and before SocW if we consider the conceptual tools produced at the level of SocW (there is no private language). Nor can it be over SocW because cognizing subjects are individuals existing at the level of MentW. It may perhaps be useful to add another dimension to this multi-layered structure—not an additional stratum, but possibly a certain plane cutting across the layers, or a framework on which they hang together (this would reflect the Husserlian spirit—the final grasping of the world as a layered construction is essentially yet another *grasping* of it, thus something *within the psychoontological dimension*). The following remarks keep to this vein.

Herre seems to accept that every one of the lower strata is, as it were, *ready-made* regardless of the higher. For example, PhysW is ready-made regardless of whether MentW occurs, and independently of the PschOnt plane. Meanwhile in the psychoontics I have sketched out above, the fundamental level existing in a certain form *independently* of the mind would make sense as a certain *ideal* representing the aim of our cognitive efforts and forming the basis of the entire layered structure, without for that matter ever *really* being attainable. It would not, at any rate, be the level inhabited by dogs, cats, dinosaurs, birds and trees. The level of the physical objects we are familiar with is *already the product of inter-layer interaction* made possible on the psychoontological plane between PhysW, MentW and SocW. Let me quote an example to illustrate this fact. One may today meet paleontologists who claim that dinosaurs never became extinct—they are nothing other than the birds we are all familiar with! They then explain that certain groups of dinosaurs evolved into birds. Yet it is vain to seek the dividing line between a dinosaur and a bird in nature “in-itself”. In realist fashion, we accept that there *is* a certain natural order which is reflected by our concepts, but the world we inhabit (our *Lebenswelt*, as the late Husserl would say) in which there *are* birds *and* (in some sense, in the form of fossils) dinosaurs, is not the real world “in-itself”, but the *real* world *apprehended within our conceptual structures*. And yet it is not an essentially *new* level of reality, but merely a *certain* actualization of the physical layer. The world of cats, birds, dinosaurs and trees *is* undoubtedly physical, but at the same time is not a world—to use Nagel’s (1986) category—viewed from nowhere, thus grasped independently of the subject’s cognitive structures. Similarly, a world containing cats, trees and “birdsosaurs” would be a *certain* actualization of the physical world (and not a new level) if for any reason it were obvious to scientists from the very beginning that the rooster is a distant relative of the tyrannosaurus. Thus, since we must exclude a new level, while at the same time we cannot *simply* speak of the physical, then the layered model turns out to be incomplete and demands the addition not of a new stratum, but of some kind of new dimension—a psychoontological one.

8 Conclusion

The reflections presented in this paper are largely metaphilosophical (except for Sects. 6, 7). I have dealt with the idea of psychoontology as a special philosophical input into cognitive science. There are two ideas however—the first invented by Jerzy Perzanowski and published in 1994, the second introduced recently by Jesse Prinz and Yoram Hazony. I argue that these ideas can be naturally combined.

If we apply the functor “qua” which plays a significant role in traditional metaphysics, we can say of psychoontology that it deals with (a) the cognizing subject *qua being*: it places the subject among beings and asks about what kind of being it is as well as how it is possible; (b) being *qua cognized*: it asks about how cognition is possible and under what conditions being is accessible. As regarding (b) we might say that psychoontology places being within the subject’s cognitive frameworks.

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References

- Angelelli I (1967) Studies on Gottlob Frege and traditional metaphysics. D. Reidel, Dordrecht
- Aristotle (1986) De Anima (On the Soul) (trans: Lawson-Tancred H). Penguin Books, London
- Bäck A (1996) On reduplication. Logical theories of qualification. Brill, New York
- Ben-Zeev A (1988) Can non-pure perception be direct? *Philos Q* 38(152):315–325
- Bocheński JM (1992) Między wiarą a logiką. Z Józefem M Bocheńskim rozmawia Jan Parys. Noir sur Blanc, Warsaw
- Davidson D (1970) Mental events. In: Foster L et al (eds) Experience and theory. Duckworth, London, pp 79–101
- Fine K (1982) Acts, events and things. In: Leinfellner W et al (eds) Language and ontology. Hölder-Pichler-Tempski, Vienna, pp 97–105
- Fodor J (1975) The language of thought. Harvard University Press, Cambridge
- Føllesdal D (1969) Husserl’s notion of Noema. *J Philos* 66(20):680–687
- Frege G (1892) Über Sinn und Bedeutung. *Zeitschrift für Philosophie und philosophische Kritik NF* 100:25–50
- Gurwitsch A (1974) Perceptual coherence as the foundation of the judgment of predication. In: Gurwitsch A (ed) Phenomenology and the theory of science. Northwestern University Press, Evanston, pp 241–268
- Herre H (2010) General formal ontology (GFO): a foundational ontology for conceptual modeling. In: Poli R et al (eds) Theory and application of ontology. Computer applications. Springer, Dordrecht
- Husserl E (1913) Ideen zu einer Phänomenologie und phänomenologischen Philosophie. Erstes Buch: Allgemeine Einführung in die reine Phänomenologie. Max Niemeyer Verlag, Halle
- Ingarden R (1964) Der Streit um die Existenz der Welt. Bd. I. Max Niemeyer, Tübingen
- McDowell J (1994) Mind and world. Harvard University Press, Cambridge
- Nagel T (1986) The view from nowhere. Oxford University Press, Oxford
- Perzanowski J (1990) Ontologies and ontologies. In: Żarnecka-Biały E (ed) Logic counts. Kluwer, Dordrecht, pp 23–42
- Perzanowski J (1994) Towards psychoontology. In: Casati R et al (eds) Philosophy and the cognitive sciences. Hölder-Pichler-Tempski, Vienna, pp 287–296
- Perzanowski J (2003) A profile of masonic synthesis. *Logic and logical philosophy*, vol 11, pp 167–189
- Perzanowski J (2004) Towards combination metaphysics. *Reports on Mathematical Logic* 38:93–116
- Piłat R (2007) O istotcie pojęć. IFiS PAN, Warsaw

- Poli R (1994) Formal aspects of reduplication. *Logic Logical Philos* 2:87–102
- Poli R (1998) Qua—theories. In: Albertazzi L (ed) *Shapes of forms*. Kluwer, Dordrecht, pp 245–256
- Poli R (2001) The basic problem of the theory of levels of reality. *Axiomathes* 12(3–4):261–283
- Póltawski A (1983) Aletejologia Edmunda Husserla. *Studia Filozoficzne* 1–3:85–133
- Prinz J, Hazony Y (2011) About psycho-ontology. <http://www.psychontology.org/text.php?id=about>.
Cited 27 March 2012
- Putnam H (1988) *The many faces of realism*. Open Court, Chicago
- Ryle G (1949) *The concept of mind*. Chicago University Press, Chicago
- Searle J (1992) *The rediscovery of mind*. MIT Press, Cambridge
- Sytnik-Czetwertyński J (2012) Introduction to Jerzy Perzanowski's way to monadology. In: Perzanowski J (ed) *Art of philosophy. A selection of Jerzy Perzanowski's works*, Ontos Verlag, Frankfurt, pp 15–24
- Werner K (2010) Przedmiot badań qua-teorii. *Diametros* 31:113–132
- Wittgenstein L (1953) *Philosophical investigations*. Blackwell, Oxford
- Wolniewicz B (1977) Semantyka Fregego. In: Frege G (1977), pp VII–XXXII
- Zahavi D (2003) *Husserl's phenomenology*. Stanford University Press, Stanford