A plea for epistemic ontologies (extended abstract)

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Abstract

This is an extended abstract of Kassel, G., A plea for epistemic ontologies, Applied Ontology, 18(4), 367-397 (2023).

In the journal article, we defined a kind of ontology that we refer to as epistemic and defended its use in applied ontology. This adjective stems from the fundamental role that we assign to the ontology: that of giving an account of our knowledge of the world, rather than of the world directly. This role is reflected in the conceptual nature of the ontology's categories. An epistemic ontology is based on a metaphysical framework that includes the mental sphere and offers a theory of conceptual representation that allows room for immanent intentional objects.

Our metaphysical frame of reference

The ontologies commonly developed in Applied Ontology (and particularly foundational ontologies) are based on metaphysical principles. Given the epistemic role assigned to our ontologies, the principles we adopt are different from those commonly used. In choosing these principles, we set ourselves two objectives. Firstly, we sought to give priority to investigating the mind because this is obviously where one is going to look for the ontological bases of knowledge; from the outset, we posited a dual mental and physical realism. Secondly, we avoided using abstract Platonic entities introduced by Frege to account for the aprioristic and objective nature of truths; we stick to a mental and physical dichotomy of worldly entities.

An investigation of the metaphysics of knowledge prompted us to look at our conceptual representations in general and the latter's intentional dimension in particular. At the turn of the 20th century, the ability to think about the world (thanks to our representations of it) led to a fierce debate within the Brentanian school: Brentano, Husserl, Meinong, and Twardowski all developed different theories of the intentional object. Precisely in order to free himself from Frege's influence, Twardowski, in his 1894 treatise On the Content and Object of Presentations. A Psychological Investigation, developed a four-term model of representation: act / immanent object / immanent content / transcendent object of reference. One of Twardowski's objectives for this model was to account for Bolzano's anobjectual representations that do not refer to any existing entity (such as "a mountain of gold"). According to Twardowski, every representation, and this type in particular, amounts to "making an object exist"; this is a thought object to which properties are attributed – being a mountain and being made of gold, in this case. In this way, each representation – including non-referential ones – has an object. Twardowski distinguishes between two kinds of thought object, namely singular objects (e.g. 'Mount Everest') and general objects (e.g. 'the mountain'); the latter is the mental analogue of a general Fregean idea.

The theory of conceptual representation that we have adopted is similar to the notion of the mental file in contemporary philosophy of the mind, as developed in particular in the current work of François Recanati. A mental file is literally a collection of information about an object; the thought object can be identified with an index of such a file. The literature on the psychology of perception also puts the notions of object file and objectival attention to the fore. The pre-conceptual attentional object characterized in this way can therefore be considered as the precursor to the conceptual thought object.

The notion of an epistemic ontology

In accordance with our metaphysical framework and particularly our theory of conceptual representation, we formulate the hypothesis whereby every subject has a system of categories corresponding to general thought objects. We refer to this system as an epistemic ontology. The categories of an epistemic ontology represent a subject's knowledge of the world, rather than the world directly. It should be noted that the "instances" of these categories are themselves (singular) thought objects. When compared with current practice in ontology development and knowledge representation, our approach has two immediate consequences.

Firstly, we note that (i) objects have properties that we attribute to them psychically, and (ii) these properties are themselves representational. A physical object (a table, for example) can be attributed not only with physical properties (e.g. the table is made of solid wood, weighs 20 kg, and is brown in color) but

also with non-physical properties (e.g. it is a Louis XIV-style coffee table and has an estimated value of €2,000). In fact, the attribution of both physical and non-physical properties to an object is common practice in knowledge representation and suggests that the instances in our current knowledge bases correspond metaphysically to singular thought objects. A key factor in distinguishing between these properties is that they belong to distinct regimes of truth.

 Secondly, thought objects, although private (they are in the heads of subjects), are nonetheless collectively constructed as the result of verbal interactions. This leads to shared objects and attributed properties. The underlying reason for this sharing is that, in the case of common-sense objects, the physical world is the same for everyone, and social facts that supervene on the physical world enjoy collective recognition. This kind of community construction and recognition also applies to the objects of scientific theories. When it comes to sharing objects, we can speak of intersubjective objectivity. This objectivity is the guarantee of the interest of epistemic ontologies in applied ontology. From what has just been said, we can note that an epistemic ontology invites the consideration of objects emanating from distinct theories, which constitutes an additional asset for the elaboration of reference ontologies.

Having established these principles, it remains for us to decide what belongs in each sphere – as the mental vs physical dichotomy prompts us to do. Language is a gateway to metaphysics. When we speak of an individual object as 'the table', it is common in the philosophy of language to consider that this is tantamount to conferring it with a real existence. But is the table a physical object or a subjective conceptual object? The physical and psychological sciences can both make contributions to this debate. The challenge is to back up a purely descriptivist approach (based on our common-sense conceptual schemes) with a standard of scientific truth (and not ideal truth) to decide under what conditions (for example) we can judge that "the table is brown". In the journal article, we illustrated the application of this type of approach to various entity domains, namely: technical artefacts, the material qualities of physical objects, and events. We also took the opportunity to compare these accounts with those conducted in the foundational ontologies BFO and DOLCE.

Keywords