

Theory and History of Ontology by Raul Corazzon | e-mail: rc@ontology.co

The Problem of Universals: the Contemporary Debate

FORMAL ONTOLOGY AND THEORY OF UNIVERSALS

"The central feature of a formal ontology is how it represents the nexus of predication, which depends on what theory of universals it assumes. The three main theories of universals are nominalism, conceptualism, and (logical or natural) realism.

The analysis of the fundamental forms of predication of a formal ontology may be directed upon the structure of reality or upon the structure of thought.

Natural realism, and in particular Aristotle's ontology, is directed upon the structure of the natural world, and the preeminent mode of being is that of concrete individual things, or primary substances. There are two major forms of natural realism, moderate realism and modal moderate realism. Aristotle's moderate natural realism has two types of predication: predication of species and genera (natural kinds), and predication of properties and relations.

Kant's and Husserl's categorial analyses, unlike Aristotle's, are directed upon the structure of thought and experience rather than upon the structure of reality. The categories function on this account to articulate the logical forms of judgments and not as the general causes or grounds of concrete being.

Husserl's formal ontology is based on a transcendental logic in which the laws and rules of logic are justified in terms of subjective analyses of presumed *a priori* structures that provide the evidence for the objective versions of those of those laws and rules.

There are two problems regarding the completeness of a formal ontology: first, the problem of the completeness of the categories of an ontology, and second, the problem of the completeness of the deductive laws that are based on those categories.

Set theory provides only an external semantics for a formal ontology; unless that ontology is set theory itself, which has no nexus of predication, and hence strictly speaking is not a formal ontology. An incompleteness theorem for a formal ontology based a set-theoretic semantics need not show that the ontology is incomplete with respect to an internal semantics. In particular, sometimes general models are a better representation of a formal ontology's internal semantics than are so-called "standard" models.

Conceptual realism is a formal ontology framed within the context of a naturalistic epistemology and a naturalistic approach to the relations between language, thought, and reality as based on our scientific knowledge of the world.

Conceptual realism is based on a conceptualist account of the speech and mental acts that underlie reference and predication. It is directed in that regard primarily upon the structure of thought. But, because its methodology is based on a linguistic and logical analysis of our speech and mental acts, it is not committed to a phenomenological reduction of those acts. Nor does it preclude such a reduction.

Conceptual realism contains both a natural realism and an intensional realism, each of which can be developed as separate subsystems that are compatible within the larger framework, one containing a modern form of Aristotelian essentialism, and the other containing a modern counterpart of Platonism based on the intensional contents of our speech and mental acts." (pp. 23-24)

From: Nino Cocchiarella, *Formal Ontology and Conceptual Realism*, New York: Springer 2007.

RELATED PAGES

[On the website "Theory and History of Ontology" \(www.ontology.co\)](#)

[Selected Bibliography on the Contemporary Problem of Universals](#)

[The Problem of Universals in Antiquity and Middle Ages](#)