CATEGORICAL ONTOLOGY I

EXISTENCE

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Abstract. The present paper approaches ontology and metaontology through mathematics, and more precisely through category theory. We exploit the theory of *elementary toposes* to claim that a satisfying "theory of existence", and more at large ontology itself, can both be obtained through category theory. In this perspective, an *ontology* is a mathematical object: it is a category, the universe of discourse in which our mathematics (intended at large, as a theory of knowledge) can be deployed. The *internal language* that all categories possess prescribes the modes of existence for the objects of a fixed ontology/category.

This approach resembles, but is more general than, fuzzy logics, as most choices of $\mathcal{E}$ and thus of $\Omega_{\mathcal{E}}$ yield nonclassical, many-valued logics.

Framed this way, ontology suddenly becomes more mathematical: a solid corpus of techniques can be used to backup philosophical intuition with a useful, modular language, suitable for a practical foundation. As both a test-bench for our theory, and a literary *divertissement*, we propose a possible category-theoretic solution of Borges' famous paradoxes of Tlön's "nine copper coins", and of other seemingly paradoxical construction in his literary work. We then delve into the topic with some vistas on our future works.

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