

Forcing and models in set-theoretic practice: What do we learn about ontology?

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Abstract: In set-theoretic ontology, philosophers grapple with two primary positions: universism and multiversism, which correspond to the epistemological perspectives of absolutism and pluralism. Notably, forcing plays a pivotal role in set-theoretic practice. Hamkins contends that a multiverse view is inherently tied to set-theoretic practice, while Maddy advocates for a universe view based on her analyses of the same practice.

To assess these claims, I conducted an extensive interview study with set-theoretic practitioners. The findings suggest that many practitioners hold determinate views on absolutism or pluralism and recognize forcing as a fundamental aspect of their work. I will elucidate how practitioners' perspectives on forcing relate to their research areas and philosophical stances.

I conclude that overarching claims about set-theoretic practice, whether rooted in universism or multiversism, presuppose a homogeneity within the set-theoretic community that doesn't align with reality. To present philosophically sound claims reflective of set-theoretic practice, one must acknowledge its inherent heterogeneity.