

Morality, amorality, and truth irrelevance
in a nihilistic type theory
(abstract)

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The rules of logic are fundamentally arbitrary. How does one choose between dependent and second-order quantifiers? Between weak and strong negation? Between linear and bunched implication? Arguments one way or the other are simply unjustified expressions of *faith*. In this paper, I propose new foundations for logic based on a *nihilistic type theory*, which has no introduction rules and no elimination rules. Nihilistic type theory (NTT) thus defines a logic completely free of dogma, *beyond* truth and falsehood—but which is nonetheless extremely powerful: I sketch soundness and completeness of NTT with respect to the extended calculus of constructions. Soundness is shown by giving a fully constructive, type-preserving translation taking NTT terms to ECC terms. Completeness is more difficult, but can be proven using the technical machinery of *truth irrelevance*. Finally, I discuss applications of the nihilistic conditional $A \rightarrow B$, used to express the proposition that A implies B , but it doesn't matter, because in the end we're all going to die anyways.