

# Non-Eternalist Logics

Adam InTae Gerard<sup>1</sup>

## 0.0 Introduction

This brief article summarizes a few approaches to identifying and classifying logics that self-modify over time. This is not to be confused with

## 1.0 Discussion

Logic has been traditionally conceived as:

1. *A priori* – known through reason and thought alone.
2. Eternal – existing outside of time, in some sense structuring or regimenting time under a metaphysical lens or remaining unchanged across time.
3. Classical – two-valued

Many systems pertaining to (3) have been studied.

Putnam argued that (1) is incorrect – our discovery of logic is at least partly empirical and might end up being Quantum.

I will attend to (2) – logics that self-modify. This class of systems is not to be confused with logical systems that pertain to belief revision (like AGM) or systems that model temporal relationships (like modal-based temporal logics). Instead, these logics *change*.

## 3.0 Potential Applications

Tracking changes in thinking pattern.

Improving empirically observed logical reasoning patterns.

Identifying weaknesses in sentient machine ethical systems or rules governing the behavior of sentient machines (as in Asimov's Three Robot Laws).

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