## Collective Dynamic Choice: the Necessity of Time Inconsistency

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## Abstract

We study collective decisions by time-discounting individuals choosing a common consumption stream. We show that with any heterogeneity in time preferences, any Pareto efficient and non-dictatorial method of aggregating utility functions must be time inconsistent. We also show that utilitarian aggregation necessitates a present bias, and decisions made via voting are intransitive. In lab experiments three quarters of social planners exhibited present biases, and less than two percent were time consistent. Roughly a third of subjects acted as if they were pure utilitarians, and the rest chose as if they also had varying degrees of distributional concerns.