

# Separable social welfare evaluation without completeness

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## Abstract

We explore incomplete social welfare criteria, based on the argument that the common assumption of completeness is often too demanding for practical purposes. In view of Amartya Sen's argument, we propose that admitting partial orderings can lead to practical solutions even when complete agreement is absent. This is particularly relevant in contexts like global environmental policy or pandemic response, where disagreements on inequality aversion exist.

We impose axioms of continuity, strong Pareto, the Pigou-Dalton transfer principle, and separability on social quasi-orderings. Building on the notion of multi-utility representation, by Evren and Ok (2011), we characterize an incomplete generalized utilitarian social criterion, which results in a set of continuous, increasing, concave, and additively-separable evaluation functions. We interpret this set of functions as a reflection of societal disagreements on the degree of inequality aversion. Our result is the first to examine incomplete social criteria to rank utility vectors when there may be disagreements on the degree of inequality aversion.