

# Impossibility of Partitioning Linearly Ordered Alternatives by Aggregating Opinions

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## Abstract

We consider the problem of partitioning linearly ordered alternatives: A social planner decides the rule determining how to divide alternatives into indifferent classes which are intervals. We show the impossibility results such that there is no appropriate way of determining the rule by aggregating opinions of members in the society. Formally, any rule satisfying INDEPENDENT OF IRRELEVANT ALTERNATIVES and NON-IMPOSITION is either *null* or *dictatorial*.

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