

Abstract

Ordinally single-peaked preferences are distinguished from *cardinally* single-peaked preferences, in which all players have a similar perception of distances in some one-dimensional ordering. While ordinal single-peakedness can lead to disconnected coalitions that have a “hole” in the ordering, cardinal single-peakedness precludes this possibility, based on two models of coalition formation:

- *Fallback (FB)*: Players seek coalition partners by descending lower and lower in their preference rankings until a majority coalition forms.
- *Build-Up (BU)*: Similar to FB, except that when nonmajority subcoalitions form, they fuse into composite players, whose positions are defined cardinally and who are treated as single players in the convergence process.

FB better reflects the unconstrained, or nonmyopic, possibilities of coalition formation, whereas BU—because all subcoalition members must be included in any majority coalition that forms—restricts combinatorial possibilities and tends to produce less compact majority coalitions.

The “strange bedfellows” frequently observed in legislative coalitions and military alliances suggest that even when players agree on, say, a left-right ordering, their perceptions of exactly where players stand in this ordering may differ substantially. If so, a player may be acceptable to a coalition but may not find every member in it acceptable, causing that player not to join and possibly creating a disconnected coalition.

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