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**Two simple characterizations of the Nash bargaining solution.** (English) Zbl 1417.91245  
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Summary: We provide two alternative characterizations of the Nash bargaining solution. We introduce new simple axioms, strong undominatedness by the disagreement point, and egalitarian Pareto optimality. First, we prove that the Nash solution is characterized by symmetry, scale invariance, independence of irrelevant alternatives, and strong undominatedness by the disagreement point. Second, we replace the independence of irrelevant alternatives axiom with the sandwich axiom [*S. Rachmilevitch*, *ibid.* 80, No. 3, 427–442 (2016; [Zbl 1378.91097](#))] and egalitarian Pareto optimality. We then demonstrate that the Nash solution is characterized by symmetry, scale invariance, strong undominatedness by the disagreement point, the sandwich axiom, and egalitarian Pareto optimality.

**MSC:**

- [91B26](#) Auctions, bargaining, bidding and selling, and other market models
- [91A12](#) Cooperative games
- [91A05](#) 2-person games

**Keywords:**

[Nash bargaining solution](#); [axiomatic characterization](#); [strong undominatedness by disagreement point](#); [sandwich axiom](#); [egalitarian Pareto optimality](#)

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