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A note on linked bargaining. (English) Zbl 1200.91121

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Summary: A recent result by *M. O. Jackson* and *H. F. Sonnenschein* [Econometrica 75, No. 1, 241–257 (2007; Zbl 1201.91036)] describes a general framework for overcoming incentive constraints by linking together independent copies of a Bayesian decision problem. A special case of that work shows that if copies of a standard two-player Bayesian bargaining problem are independently linked (players receive valuations and trade simultaneously on a number of identical copies), then the utility cost associated with incentive constraints tends to 0 as the number of linked problems tends to infinity. We improve upon that result, increasing the rate of convergence from polynomial to exponential and eliminating unwanted trades in the limit, by introducing a mechanism that uses a slightly richer and more refined strategy space. Although very much in the same spirit, our declarations are constrained by a distribution which is skewed away from the expected distribution of player types. When a sufficiently large number of bargaining problems are linked, "truth" is an equilibrium. Moreover, this equilibrium is incentive compatible with the utility cost of incentive constraints almost surely equal to 0.

MSC:

91B26 Auctions, bargaining, bidding and selling, and other market models
91A35 Decision theory for games

Cited in **1** Document

Keywords:

linked bargaining; mechanism design; Bayesian equilibrium; efficiency

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References:

[1] Jackson, M.O.; Sonnenschein, H.F., Overcoming incentive constraints by linking decisions, Econometrica, 75, 1, 241-257, (2007) · Zbl 1201.91036

[2] Myerson, R.B.; Satterthwaite, M.A., Efficient mechanisms for bilateral trading, Journal of econometrics theory, 29, 2, 265-281, (1983) · Zbl 0523.90099

[3] Shiryaev, A.N., 1996. Probability, 2nd edition. Vol. 95 of Graduate Texts in Mathematics. Springer-Verlag, New York, translated from the first (1980) Russian edition by R.P. Boas.