

Seeking relationship support: Strategic network formation and robust cooperation

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Abstract

We study cooperation on social networks with private monitoring and communication. For arbitrary networks, we construct a class of equilibria that attain high cooperation on all supported links-i.e., all links that are in triangles. These equilibria are robust to social contagion, bilaterally renegotiation proof, and invariant to players' beliefs about the network outside their local neighborhoods.

In these equilibria, guilty players exert high effort for their innocent partners, and are willing to do so because they are compensated for their effort costs. Anticipating cooperation, players in a network formation game with random opportunities to form links will strategically form a network with realistic small worlds properties, including high support but relatively low clustering.