

Developing a new framework of adaptive concession-making strategies:

An approach to behavioral game theory from psychology

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Abstract

As an attempt to fill the gap between psychological studies on negotiations and game-theoretical studies on bargaining, I provide a new conception, that of the concession-making strategy. This type of strategy is formally defined as a pattern of consecutive concessions in bargaining. Because such a pattern is a product of decision makers' cognitive and motivational processes, this framework is expected to help researchers take a psychological approach to behavioral game theory on bargaining. I demonstrate how this approach is useful for explaining a puzzling phenomenon—equal division of surplus achieved in bargaining under two-sided incomplete information. In Study 1, through Monte-Carlo simulations, I found that a particular strategy, called nice bargainer, could successfully reproduce experimental data. In Study 2, through evolutionary computer simulations, I showed that this strategy is adaptive in settings that captured a feature of real world. In Study 3, through laboratory experiments, I obtained evidence that people actually use the nice bargainer strategy.

Keywords: bargaining, behavioral game theory, evolutionary game theory, adaptive decision making