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Editorial

Experiments on Communication in Games: Introduction to the Special Issue

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Communication is an important topic in the experimental study of strategic behavior, both because of the vital role of communication in variety of strategic games, and because of the insights that can be gained through analyzing communication contents in experiments. This special issue focuses on experimental studies of communication in games. The papers published in this special issue implement communication in a variety of ways, from in-person face-to-face communication to anonymous online chat to Facebook groups. Communication structures vary from free-form messages to restricted chat, and also vary from sequential to simultaneous to endogenously chosen. Communication is studied in a variety of games, including trust, majority voting, prisoner's dilemma, stag hunt, and a mixed motive game. Content analysis of chat messages are used in some instances to understand subjects' expectations. This special issue offers a glimpse into the breadth of experimental economics and communication in games.

Bayindir, Gurdal, Ozdogan, and Saglam [1] use a laboratory experiment to examine the impact of different communication structures on receivers' decisions in a sender-receiver game. In their version of the game, there are two senders and one receiver. This setting is akin to receiving advice from two biased sources (e.g., doctors or salespeople). Theory predicts that senders should not be truthful and receivers should not trust senders' messages. However, previous experimental work examining sender-receiver games with only one sender found senders are much more honest and receivers are much more trusting than predicted. This study examines whether such truthfulness and trust will occur when there are two senders with symmetric payoffs. They consider three communication structures in their experiment: messages from senders could be simultaneous, sequential, or the choice of the receiver. They find that senders are much less honest in the two-sender game compared to one-sender games. However, receivers still trust messages, as in previous work, when messages from senders are non-conflicting. Receivers are also much more likely to choose the simultaneous communication structure over sequential communication when messages were non-conflicting in previous play. The results suggest that truthful communication can be sensitive to the number of senders offering advice.

Schlangenotto, Schnedler, and Vadovič [2] use a classroom experiment to examine the effect of face-to-face, local communication in a common-value majority voting game. A group of 35 subjects vote for which of two colors comprises the majority of balls in an urn, with the option to abstain. Most subjects observe noisy information in the form of a single draw from the urn, while a single "expert" subject is perfectly informed about the composition of the balls in the urn. Their game features both an equilibrium in which everyone votes and a more efficient equilibrium in which everyone abstains but the expert. In the initial round of play, no communication is permitted. The results show that a large majority of subjects initially vote for the color of their own draw. Subjects are then allowed to talk with their immediate neighbors in the classroom before repeating the voting game. In the subsequent round, the frequency of abstention more than doubles.

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These results suggest that communication allows subjects to teach one another the efficient abstention strategy.

Abatayo, Lynham, and Sherstyuk [3] examine the effects of free-form communication in trust games. They compare three media featuring varying degrees of anonymity and channels of verbal and non-verbal communication: face-to-face, Facebook groups, and anonymous online chat. Across all three media, their results show that communication enhances trust and trustworthiness. Using content analysis of the messages sent in the experiment and elicited beliefs, they find that communication affects senders' expectations about receiver behavior as well as senders' social preferences. On the other hand, communication mainly affects receivers by changing their expectation about the amount sent. Their results suggest that online communication has become similarly effective in improving trust and trustworthiness compared to face-to-face communication.

Finally, Wang and Flannery [4] present an experiment comparing messages that communicate intentions versus requested actions in 2×2 games. They consider the prisoner's dilemma, stag hunt, and a mixed motive game similar to battle of the sexes. In the intention treatment, pairs of subjects first exchange limited messages indicating their intended actions in a game. Each subject then chooses an action. In the request treatment, messages instead indicated a request for the other player to take a specific action. In the stag hunt and mixed motive games, where messages can credibly work as a coordination device, subjects behave similarly across treatments. However, in the prisoner's dilemma, request messages more frequently indicated cooperation compared to the intention treatment. Moreover, prisoner's dilemma actions in the request treatment are more likely to deviate from messages. For example, a subject in the request treatment might send a message suggesting cooperation in the prisoner's dilemma, but then defect instead, while a subject in the intention treatment is more likely to truthfully communicate intent to defect. These results suggest that lying aversion may play a larger role when messages indicate intentions rather than requests.

In conclusion, these four papers provide valuable insights about economic behavior in games. The use of communication in experiments increases the external validity of their studies, as communication, in its many and changing forms, is fundamental to many real-world strategic decisions. The findings complement the existing literature and highlight the need for experimental economists to continue to advance the study of communication in games.

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