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TOPICS IN MICROECONOMICS (Experts, Intermediaries, Communication)

Project description.

Below you will find a description of several themes. The specific topics suggested within each of them are approximate: the students are free (and even more - encouraged) to suggest their own ones, related, however, to the field. The project is appropriate for students interested in the theory, in particular in game theory and in the economics of information.

For a master thesis, each student is supposed to build a model and to show its relation to the existing literature. The project participants are required to attend weekly the NES Microeconomics Research Workshop and to present their work there.

The topics.

Intermediaries and expert advice. In many real-life situations bargaining between two parties is mediated by an agent (intermediary, broker, investment banker) who may have superior information about the demand for (or supply of) the item being sold, as well as about the valuation for the item of a particular buyer (seller). This is the case, for instance, for IPOs; transactions with real estate, art items; employees recruiting... The informed intermediaries may and do affect the outcome of the bargaining if they reveal their information in the form of advice. In case of auctions of art, auction house experts help sellers to set reserve prices and at the same time provide in the pre-auction catalogues a low and a high price estimate for each item (Ashenfelter and Graddy (2002). In the real estate sector the Federal Trade Commission survey reports that 20.9% of buyers and 30.5% of sellers use the real estate agent's advice as the single most influential source of information to determine their first price offers and listing prices, respectively.

The role of intermediaries in facilitating bargaining is broadly discussed in the literature. Typically, intermediaries have access to some technology that helps to bring the two parties together and raises the efficiency of market organization. For instance, intermediaries may facilitate the search of a trading partner (Rubinstein and Wolinsky (1987), Yavas (1994)) or they may have expertise in certification, screening and monitoring (Biglaiser (1993), Lizzeri (1999)). The other strand of literature on intermediation emphasizes the strategic advantage that a party (seller or buyer) may gain if it delegates the bargaining to the intermediary (e.g. Julien and Mariotti (2003)). For example, Cai and Cont (2000) analyze how a principal (a seller) should design the delegation contract in order to provide proper incentives for her delegate and gain a strategic advantage against a buyer.

The literature that considers how information transmitted by the intermediary in the pre-bargaining stage affects bargaining is, however, scarce. The closest papers that deal with the question are Baron and Holmstrom (1980), and Baron (1982). These papers study the demand for investment banking advising and distribution services for the case in which the investment banker is better informed about the capital market than is the issuer. The task of the issuer is to design a contract that both induces the banker to use his superior information to the issuer's advantage and provides a disincentive for the banker to price the issue too low in order to reduce the effort required to sell the issue. The optimal contract offered to the investment banker determines compensation as a function of his report about market demand for the issue and proceeds from the sale. Thus, both papers use complete contracting approach.

In reality the intermediary may not always have information that may be valuable in negotiations and, in any case, the advice of the intermediary is hardly contractible. Hence, analyzing bargaining via an informed intermediary, it may be plausible to consider bargaining stage that is preceded by the cheap talk stage[1], at which the intermediary may reveal some information to the parties.

Farrell and Gibbons (1989) claim that cheap talk can matter in bargaining. In their model at the pre-bargaining stage parties may announce whether they are "keen" or "not keen" to trade. Farrell and Gibbons show that if saying that one is "keen" makes one's partner more likely to agree on a trading price, then it is the keenest types (high-value buyers, low-value sellers) who are most willing to say so, and hence the cheap talk convey some meaningful information. The equilibrium of the bargaining game preceded by a cheap talk involves more trade when one of the parties has a keen type and less trade when both parties have intermediate types compare to the equilibrium of ex-ante efficient bargaining without a cheap talk.

The intermediary that possesses private information about parties' valuations does not trade off bargaining positions against the probability of continued negotiation in the same way as do sellers and buyers in the Farrell and Gibbons (1989). The broker may reveal valuable information only when her interests (in terms of expected compensation) are aligned with that of the seller (buyer).

$*$)One of the interesting questions is: what kind of information will be reported by the intermediary in the game where bargaining is preceded by the "communication with the broker" stage? How the incentives to transmit infor-

[1] Cheap talk games are a particular class of signalling games where there is no intrinsic cost of sending a message - talk is cheap. A seminal paper that originated the literature is Crawford and Sobel (1982); for an informal introduction see Farrell and Rabin (1996) - both references are in the description of the next topic.

mation depend on the intermediary's contract[2]? The analysis may be helpful to understand existing rules of broker's compensation and to realize when information conveyed by brokers may be more trusted.

$*$) The other question arising in the context is the following. Suppose that traders face a choice between bargaining via the informed intermediary who can convey useful information and bargaining without a mediator. In the first case parties forego rents that go to the broker, in the second one they lose efficiency of trade. Presumably different types of buyers and sellers trade off differently these two things. It would be interesting to analyze the trade-off and compare it with the well-known trade-off between rents and efficiency in search models (See e.g. Yavas (1994).

References Ashenfelter, O. and K. Graddy (2002) "Auctions and the Price of Art", Discussion paper ISSN 1471-0498, University of Oxford.

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Cheap talk, experts. It is often the case that decision makers, such as high-level managers or political leaders, do not have enough expertise in the relevant

[2]For example, if the intermediary receives a fixed commission in case the trade takes place (and nothing otherwise) naturally she would communicate information that increases the probability of trade. In a cheap talk setting, however, her messages will have no credibility under such a contract (she will *always* try to convince the buyer to increase the price and the seller to reduce it).

fields and look for the advice of better informed parties (e.g. lower-level managers, marketing specialists, economic advisors). The experts dispensing advice are often also interested in the decision but their objectives differ from those of the decision maker. In this case the amount of information that can be extracted from the expert depends on how much his interests are aligned with the objectives of the principal.

This situation is described in the Crawford and Sobel (1982) cheap-talk model: The sender (S), who knows the state of the world (an element of the unit interval), sends a costless message to the receiver (R) who then takes a decision affecting both parties' payoffs. If the players' interests are not too conflicting, the sender may convey some information, although with noise. More precisely, in equilibrium the state space is partitioned into a finite set of intervals, and the sender reports thruthfully to which element belongs the true state. The closer are the parties' preferences, the more precise information will be transmitted.[3]

*) In many real-life situations in which the cheap-talk model can be applied, the receiver may choose to be more or less informed before communicating with the sender. In particular, in the Crawford-Sobel framework one can assume that before listening to the sender's message the receiver may carry out a private investigation and obtain an exogenous noisy signal about the state of the world. Will such a signal induce more or less information revelation by the sender? That is, will the exogenous signal complement or substitute the one conveyed by the sender?

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[3] See also Krishna and Morgan (2001), Battaglini (2002), Battaglini (2003), Ottaviani and Sorensen (2004a and 2004b) and references therein.

Ottaviani M. and P. Sorensen (2004) "Professional Advice", mimeo
Ottaviani M. and P. Sorensen (2004) "Reputational Cheap Talk", mimeo.

The press and the politics. When political parties compete for the electorate, they usually do it by announcing their platforms and committing to future policies. However, to evaluate the attractiveness of the programs, citizens need to know the underlying state of the world. For example, should we increase spending more on health care or on education? Potentially, each program can be optimal, and clearly the professionals who design the parties' programs are much better informed than most voters. Since mass media are the main source of information for the voters, it is their quality, organization and preferences which cast a major influence on the outcome of the political competition. There are several recent papers which study how the press affects the politicians' behavior. Stromberg (2004) studies the effects of the media on the policies targeted at different groups of voters/consumers. Besley and Prat (2001) consider media capture by the politicians. Chan and Suen (2004) study how the press affects electoral competition by signalling the true state (unknown to the voters) and thus allowing them to evaluate the parties' policies.

*) One of the projects can consist of building a model where the press would play a role similar to Chan and Suen (2004), but its behavior would be driven by profit maximization rather than preferences about the realized policies as in Chan and Suen.

*) Another possible project is to assess the role of the press in a situation in which the parties may not only have different preferences, but also different competence. You may add the press to a model like Heidhues and Lagerlof (2003).

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