

DELIBERATION VS. MARKET INTERACTION: TWO COMPLEMENTARY PERSPECTIVES ON COLLECTIVE DECISION-MAKING

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ABSTRACT

This paper analyses critically some opinions put forward by Cass Sunstein in a 2007 article on how information is aggregated and collectively used in deliberating groups, as opposed to prediction markets¹. The author puts forward several arguments in support of prediction markets, with a view to extracting useful lessons in reforming or adjusting deliberative processes.

Rather than providing arguments in support of one side or another, we attempt to indicate the intrinsically related nature of deliberation and „impersonal” market aggregation of information in group decision-making.

KEYWORDS: deliberation, prediction market, information management, collective decision-making, rationality.

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One of the most influential analyses of deliberation in collective decision-making is offered by Jürgen Habermas' theory of communicative action¹. Deliberation is the space of undistorted, open communication, where arguments put forward by rational participants are compared against each other and against norms and standards collectively recognized as valid or desirable. The „ideal speech situation” assumes complete absence of distortions: „Rational discourse is supposed to be public and inclusive, to grant equal communication rights for participants, to require sincerity and to diffuse any kind of force other than the forceless force of the better argument. This communicative structure is expected to create a deliberative space for the mobilization of the best available contributions for the most relevant topics”².

Habermas' rationalist perspective seems to conceive deliberation as the emerging convergence of arguments and values of rational decision-makers. However, the analysis of deliberating groups in real life settings manifests worrying features that largely contradict the Habermasian model. In many cases, deliberating groups cannot aggregate effectively (or even correctly) the information held by its individual members. They are the victims of „parasitic” mechanisms that distort communication and alter significantly the behavior of participants. Sunstein's rather surprising claim is that these distortions can appear whether the conditions for rational deliberations are met or not: “Those preconditions will do little

¹ See Habermas, Jürgen (2000) *Conștiință morală și acțiune comunicativă*, Editura All, București

² Jürgen Habermas (1999) *Between Facts and Norms: An Author's Reflections*, 76 DENV. U. L. REV. 937,940

to affect the key failures on the part of deliberating groups. Each of the failures is likely to arise even if discourse is public and inclusive, even if participants are sincere, and even if everyone has equal communication rights”¹. This means that the probability of failure (in aggregating efficiently the information privately held by their members) stays the same, regardless of whether the deliberation fulfils the Habermasian criteria or not. The problem seems to be with deliberation as such, not with the context of deliberation.

In contrast, Sunstein puts forward a model of predictive markets, in which the disclosure, transmission and use of information within the group is determined by market forces (supply/demand pressures and price signals). The alleged advantage of prediction markets is that they tend to correct cognitive errors made by individual participants and encourages the disclosure of private information. For instance, an investor on the stock market will be “rewarded” for having invested in a certain stock, because other investors will pick up on it and have the tendency to invest in the same stock, making its value go up. Investing in a certain stock means making some piece of information public: in this case, the fact that the value of the stock is likely to increase. As several agents converge on the same stock, they create a cascading effect, attracting others and creating a sort of self-fulfilling prophecy (its value increased as a result of massive investment, not necessarily economic performance). Sunstein claims that prediction markets can supplement or even replace deliberation, especially in contexts with clearly-defined hierarchies and authoritative group members. In any case, the analysis of prediction markets can offer useful insights into possible options for eliminating the sources of deliberative failures.

Why do deliberating groups fail to aggregate private information effectively? Firstly, isolated group members will tend to underestimate their own opinions or arguments, if they contradict the perceived „majority opinion”. Many times, they have a flawed perception of what the „majority opinion” is, having the tendency to take into account the positions of „representative” members or group leaders. Secondly, many participants may choose to withhold the information they own, due to fear of „reputational sanctions” from other group members (prestige and status within the group, attitudes of significant others). Thirdly, they are not motivated to share the information they own (even if they are aware that it would contribute to achieving the collective goals) because the possible individual benefits that they would be entitled to are too small compared with the cost of disclosing that information: “In this sense, participants in deliberation often face a collective action problem, in which each person, following his rational self-interest, will tell the group less than it needs to know. At least, this is so if each member receives only a small portion of the benefits that come to the group from a good outcome—a plausible view about the situation facing many institutions, including, for example, labor unions, religious organizations, student and faculty groups, corporate boards, and government agencies”².

As a result, group decision-making is plagued by four main self-defeating mechanisms:

(1) amplification of collective errors - for instance, the inadequate use of heuristics: people will value information from different sources on the basis of availability of examples (how many examples come to mind and how significant are they), proximity in time (recent memories are more vivid and emotional, thus more likely to influence behavior) or similarity (judgments of probability are influenced by perceived resemblances between events or classes of events). The use of these heuristics (as well as many others) is

¹ Sunstein, op. cit., 8

² Sunstein, op. cit., 6

not necessarily irrational, but it can easily cross the boundaries of reasonable judgment. Sunstein argues that, actually, many times groups amplify rather than attenuate individual cognitive errors: „Groups are more likely than individuals to escalate their commitment to a course of action that is failing -- and all the more so if members identify strongly with the groups of which they are a part.²⁸ There is a clue here about why companies, states, and even nations often continue with projects and plans that are clearly going awry. If a company is marketing a product that is selling poorly, it may well continue on its misguided course simply because of group dynamics. (Enron is a likely example)”.¹

(2) Cascading effects – defined as a „process by which people influence one another, so much so that participants ignore their private knowledge and rely instead on the publicly stated judgments of others”². Cascading presents a sort of decisional tunneling, in which group members „progressively undermine the rationality of one another, degrading organizational means-ends calculations”³. Decision-makers can fall into informational cascades (silencing themselves out of deference for information publicly announced by other group members) or reputational cascades (keeping information to themselves in order to avoid undesired reactions or attitudes from the others).

(3) Group polarization - „by which members of a deliberating group end up adopting a more extreme version of the position toward which they tended before deliberation began. The problem is especially severe for groups of like-minded people, who typically end up in more extreme positions as a result of deliberation”⁴. This process of mutual reinforcement of opinions and attitudes is systematically observed across a large area of contexts and communities; studies and experiments show, for instance, that people willing to take risks will become even more risk-inclined after interacting with like-minded individuals, or that cultural stereotypes and prejudices will be systematically reinforced after discussing them with people who hold similar views⁵.

(4) Ineffective aggregation of information – even if individual group members have the relevant information and they know that their private information is valuable for achieving group aims, many of them will emphasize shared information at the expense of privately-held information, due to the so-called common-knowledge effect, „through which information held by all group members has more influence on group judgments than information held by only a few members”⁶. In other words, group decision-making is rendered ineffective by the aggregated effect of individual „hidden profiles” (pieces of valuable information that members fail to disclose).

The probability of occurrence for each type of deliberative failure will depend on group characteristics and contextual constraints – for instance, group cohesiveness or relation with competing groups. No doubt, analyzing the key variables correlated with the emergence of each type of failure would be a useful resource for improving group dynamics and collective decision-making. But are prediction markets more likely to avoid these failures?

¹ Sunstein, Cass și Hastie, Reid (April 2008) *Four Failures of Deliberating Groups*, John M. Olin Program in Law and Economics Working Paper Series, <http://www.law.uchicago.edu/academics/publiclaw/index.html>, 11

² Ibid, 12

³ Schulman, Paul R. (1989) *The “Logic” of Organizational Irrationality*, în *Administration and Society*, 31

⁴ Sunstein, op.cit., 18

⁵ See for instance Roger Brown (1986) *Social Psychology: The Second Edition*. New York, N.Y.: Free Press

⁶ Sunstein, op. cit., 22

The dominance of „impersonal” and mediated interaction (through market signals) at the expense of direct interaction between participants can certainly reduce the likelihood of having cascading effects or group polarization, but will not necessarily attenuate individual cognitive errors or systematically encourage participants to disclose valuable information. Price signals can reinforce and polarize opinions, just as direct communication can. Speculation on the stock market can send the wrong price signals (in terms of stock performance), but as soon as other investors pick up on it and invest, the initial signal will be overwhelmed by a cascade of reinforcing signals, which will amplify the error (the misrepresentation of stock performance) and attract even more investors. “Speculative bubbles” are mainly the result of this mirroring and cascading effect which amplifies individual distortions (whether voluntary or not), creating dramatic distortions at collective level.

The effective aggregation of privately-held, dispersed information is apparently the main advantage of prediction markets over deliberation, as disclosure of information in a market setting is encouraged by each participant’s incentive to react quickly to price signals, in order to “cash in” on volatile opportunities. At the same time, participants are aware of the highly competitive environment they are part of and will try to disclose as little information as possible, whenever possible. Obviously, in most situations they will not simply withhold essential information (because this would imply refraining from acting on the market). Instead, they will try to “package” it in order to render their own market moves difficult to “read” by competitors (for instance, through diversification of investment and use of intermediaries, in order to hide their own identity). Markets aggregate the information publicly announced by participants, but participants are often acting on the basis on valuable information that they are not willing to disclose.

On the other hand, deliberation may prove successful in situations where market mechanisms fail, exactly because they imply a direct interaction. Decisional crises and bottlenecks may prove difficult to solve through market, especially where problems become personal (offence, prestige etc.). As the cost of crisis grows exponentially in time (for instance, sellers are denied access to a distribution network), participants may try to negotiate a way out. Direct interaction is significantly more flexible and versatile, due to nonverbal communication, capacity to react quickly to perceived misunderstandings and to build trust.

In fact, deliberation and market dynamics are intertwined in most contexts of group decision-making, especially for larger groups. Collective decisions are based on face to face communication (for instance, at the level of managers and senior experts), but also market-like mechanisms (coordination of joint activities on the basis of common standards, sensitivity to market signals, mutual adjustment of strategies through indirect, mediated communication). Aggregation of information through deliberation or market interaction implies a complementarity rather than opposition. Organizational structures offer a good example of combining the two: while the strategy and policy guidelines are usually developed through direct deliberation in a relatively small group of decision-makers (the department coordinators or sectoral managers), most of the subsequent implementation is done through a mix of direct and indirect interaction, designed to increase efficiency and prevent decisional bottlenecks. Their joint application can offer mutual advantages in situations where any of them, applied in isolation, would be more likely to fail.