Juries

ECONOMICS LITERATURE

Condorcet Jury Theorems apply to situations in which agents have common preferences but diverse information, and state that in such a situation a policy of majority rule works better than individual decision.

Feddersen and Pesendorfer (1998). "Convicting the Innocent: The Inferiority of Unanimous Jury Verdicts Under Strategic Voting."

The unanimity rule might lead to higher probabilities of convictions of the innocent and acquittals of the guilty than simple majority rule.

 "Until recently, the literature has assumed that each juror will behave as if her vote alone determines the outcome. Several recent papers have demonstrated that such behavior by jurors is frequently irrational and that the combination of private information and common interests creates an incentive for jurors to vote strategically."

Coughlan (2000). "In Defense of Unanimous Jury Verdicts: Mistrials, Communication, and Strategic Voting."

In an article that is a very direct response to FP(1998), Coughlan shows that, when there is either the *possibility of mistrial* or *communication among jurors*, "nonstrategic voting is a Nash Equilibrium under fairly general conditions," and "unanimity performs better than any alternative rule in minimizing probability of trial error and maximizing expected utility."

According to Coughlan, Feddersen and Pesendorfer "make several assumptions to eliminate potential equilbria that do not satisfy certain normative criteria. In particular, they do not consider asymmetric equilibria and equilibria in which a juror's strategy is independent of the signal received."

Austen-Smith and Banks (1996) "Information Aggregation, Rationality, and the Condorcet Jury Theorem."

"Sincere voting does not constitute a Nash Equilibrium."

"A satisfactory rational choice foundation for the claim that majorities invariably do better than individuals… has yet to be derived."

The jury theorem: as the number of jurors increases, the probability that the jury's collective decision is the "better" alternative approaches 1; majorities are more likely to choose the "better" option than individuals.

Proofs of this theorem have assumed that individuals behave in the same manner on a jury as they would if they were the sole decider of the outcome: they always vote "sincerely," and that sincerity is unaffected by the voting system.

Demonstration of an occasion in which sincere voting is not rational:

Suppose there are 3 voters and 2 possible states (A and B) of the world.
Each voter receives a signal (0 or 1) about the true state, prob(signal=true) > .5
2 assumptions:
- (1) "Sincere voting is informative in that on receiving a signal of 0(1) an individual thinks A(B) is the true state."
- (2) "The common prior belief that the true state is A is sufficiently strong that if any individual (i) were to observe all three individuals' signals, then (i) believes B is the true state only if all the available evidence supports the true state being B.
  Implicit: (3) Voting is sequential, and the final voter can see what the other two voters chose.

The third voter's vote is decisive if and only if the first and second voters voted for different choices, which can only occur if they had different signals.
If that is the case, because of assumption (2), the third voter will always vote for A in spite of whatever his signal is, which could be insincere according to the definition of sincerity in assumption (1).

Wit, Joergen. (1996) "Rational Choice and the Condorcet Jury Theorem."

A response to Austen-Smith and Banks (1996).
"A rational choice foundation for the claim that majorities invariably do better than individuals is derived."
ASB do not allow for mixed strategies in their analysis.
In Wit's paper, allowing for mixed strategies in a Bayesian equilibrium framework will result in an equilibrium in which majority rule always works better than an individual decision rule.

LEGAL STUDIES LITERATURE

Hastie, Penrod, and Pennington. *Twelve Angry People: The Collective Mind of the Jury* (1983)

The Jury Simulation Experiment
Three different decision rules were tested:
-Unanimity
-10 to 12 votes required
-8 to 12 votes required
Result: There was little difference in the outcome; the only significant difference was that under the unanimity rule, there were slightly more hung juries.
Other findings:The depth of discussion increased with the strictness of the decision rule.
Foremen tended to dominate discussions more when only 8 votes were required.
Unanimity did not lead to more discussion.
A unanimity rule tends to cause longer trials and lead to more hung juries.

Jury Selection
Scientific Jury Selection
Categorizing potential jurors into "defense-oriented" or "prosecution-oriented."
Only a few factors tended to be significantly related to these categories, and even those were rather weak.
-Unemployed people and retired jurors were more defense-oriented than working people.
-Females were more defense-oriented than males.
-Previous jury experience makes jurors more prosecution-oriented.
But the authors conclude that scientific jury selection techniques are "not an impressively powerful lever for use in courtroom selection procedures."
However, personal characteristics are more indicative of jury room behavior.

Klevorick and Rothschild (1979) "A Model of the Jury Decision Process."

The Supreme Court allowed for there to be 6-person juries and nonunanimous 12-person juries in certain state-level criminal cases.

Majority persuasion hypothesis: post-trial interviews of people on 225 different juries in Chicago and Brooklyn led to the conclusion that first-ballot votes (prior to any deliberation) determine the outcome in approximately 90 percent of all cases. Later experimental studies tended to support this. Gelfand and Solomon developed a two-stage comparative static model in which there is a first-ballot distribution of votes that can be altered by incorporating "varying degrees of majority persuasion." The model in this paper (Klevorick and Rothschild) follows from it.

Schkade, Sunstein, and Kahneman. (1998) "Assessing Punitive Damages."

"This essay reports and discusses the implications of an experimental study involving punitive damage awards. The study finds that in product liability cases, people's normative judgments (about outrageousness and appropriate punishment) are relatively uniform, at least when measured on a bounded numerical scale (0 to 6). With the unbounded dollar scale, however, outcomes become extremely erratic and unpredictable."

Schkade, Sunstein, and Kahneman. (2000) "Deliberating About Dollars: The Severity Shift."

This article involved a study of over 500 mock juries composed of over 3000 jury eligible citizens.
The main conclusion was: Deliberation produces a "severity shift" – the jury's final dollar verdict is usually higher than the median of the jurors' pre-deliberation judgments.
Other Conclusions:
      (1) The severity shift is due to a "rhetorical asymmetry" – arguments for higher awards are inherently viewed more favorably than arguments for lower rewards.
      (2) When judgments are in "units of punishment" instead of dollars, deliberation tends to have the same type of effect: it results in group verdicts that are more drastic than the median of individual pre-deliberation judgments.
      (3) Deliberation makes the problem of erratic and unpredictable dollar awards even more erratic and unpredictable.

Moore (2000) "Judges, Juries, and Patent Cases: An Empirical Peak inside the Black Box."

Juries have been deciding an increasing number or cases involving patents since the mid-1970's. In 1975 juries decided about 10 percent of patent cases, and in 2000 this figure was about 60 percent. This has occurred in spite of a widespread conventional wisdom that juries are incompetent.

This article used a database of all tried patent cases from 1983 to 1999 (approximately 1200 cases).

Moore concluded that juries decide the cases somewhat similarly to judges, but with some important differences:
Juries tend to decide whole suits rather than delineate individual issues.
Juries are generally more pro-patent holder.