

# Committees and Information Acquisition

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# APPLICATION OF MULTI-SENDER MODEL

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and  
Information  
Acquisition

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Evaluation of  
Committee  
Rules

Organization  
of Debates

Think of a legislative committee decision making problem in three parts:

- 1 Two Committee Members
- 2 A Legislature (Decision Maker)

# MODEL

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- Committee members are Senders with bias  $b_j$ .
- Action  $y = x + \theta$ .
- Legislature is Receiver with bias 0,  $U^R(y, \theta) = -x^2$ .
- $U_i^S(y, \theta) = -(x - b_i)^2$ .
- Senders know  $\theta$ .
- $\theta \in [0, 1]$  uniformly distributed.
- $p_0 \in [-1, 0]$  is status quo.

# COMPARE EFFICIENCY PROPERTIES OF RULES

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- OPEN RULE: Standard Cheap-Talk, with “talk” interpreted as a proposed policy.
- CLOSED RULE:  $S_1$  proposes;  $S_2$  talks;  $R$  picks either status quo or  $S_1$ ’s proposal.
- MODIFIED RULE: OPEN, but  $R$  must pick either status quo or one of two proposals.

If committee is homogeneous (equal biases), last two rules are equivalent.

# OPEN RULE

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Full revelation if biases are small by earlier result.

# CLOSED RULE

$S_1$  can restrict outcome to status quo with appropriate proposal.

This will be optimal when the status quo is optimal for  $S_1$ :

$$p_0 + \theta = b_1$$

In fact, the most informative equilibrium involves:

- the status quo for  $\theta$  near  $b_1 - p_0$ .  
(Both  $S_j$  like SQ.)
- Full information for  $\theta$  extreme.  
(Both  $S_j$  prefer  $\theta$  to  $p_0 + \theta$ ).
- Compromise: Leaving both Sender types at least as well off as status quo.  
If  $S_j$  prefers status quo to  $R$ 's ideal, then compromise will lead majority to be indifferent between SQ and ideal.

# DETAILS

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- $\theta < -2b_1 - p_0$ :  
 $S_2$  likes SQ less than 0.  $S_1$  propose 0. Only one possible result.
- $\theta \in (-2b_1 - p_0, -b_1 - p_0)$ :  
 $S_2$  strictly prefers 0 to status quo.  $S_1$  does better than 0.  $S_2$  indifferent between two options.
- $\theta \in (-b_1 - p_0, b_1 - p_0)$ :  
 $S_1$  and  $S_2$  both prefer status quo to  $R$ 's ideal.  $R$  indifferent.
- $\theta \in (b_1 - p_0, 2b_1 - p_0)$ .  
 $S_1$  is indifferent between the two equilibrium choices.  $S_2$  does better than both.
- $\theta > 2b_1 - p_0$ :  
 $R$  obtains ideal, which both senders prefer to status quo.

# OTHER EQUILIBRIA

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Imagine game in which  $S_2$  did not exist.  $S_1$  makes proposal, which  $R$  can take or leave.

There is an equilibrium in which only  $R$  either gets his favorite or the status quo.

There are pooling equilibria favorable to  $S_1$  and unfavorable to  $S_2$

# Gilligan-Krehbiel Outcome

- $\theta < -3b_1 - p_0$ :  
 $S_1$  obtains his favorite.  $R$  would prefer 0, but  $S_1$ 's proposal is better for  $R$  than SQ.
- $\theta \in (-3b_1 - p_0, -b_1 - p_0)$ :  
 $-2b_1 - \theta - p_0$ , which is better than  $p_0$  for both  $S_1$  and  $R$ .
- $\theta \in (-b_1 - p_0, b_1 - p_0)$ :  
 $S_1$  and  $S_2$  both prefer status quo to  $R$ 's ideal.  $R$  indifferent.
- $\theta \in (b_1 - p_0, b_1 - p_0)$ .  
SQ
- $\theta > b_1 - p_0$ :  
 $S_1$  obtains ideal, which  $R$  prefers better than SQ.  $S_2$  suffers.

# MODIFIED RULE

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This works the same as Open Rule.

Reason: It is sufficient to use one of the senders' proposals as a punishment.

# COMMENTS

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Results suggest that Open and Modified Rules are better for efficiency.

US congressional committees use closed rules.

Why?

- Equilibrium Selection.
- Distributional concerns.
- Bad model.

# VARIATIONS

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- Noisy observations. (Full revelation is not robust.)
- Costly information acquisition. What happens in a proposal game in which sender's must decide whether to acquire information? How does this depend on the rule and the order of communication?
- Is the status quo safer? Alternative assumptions on modeling uncertainty.

# COMMITTEE DESIGN

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## Ottaviani-Sorensen

Preferences of Decision Maker:

Standard from symmetric 2 action, 2 state voting model

$(u(i, i) = 0; u(i, j) = -.5, i \neq j)$ .

Expert advisors get signal, informative, binary signal.

Variations:

- Experts differ in quality.
- Experts care about the probability that they are viewed as good.

# THE GAME

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- 1 Decision maker orders experts.
- 2 Experts get signals.
- 3 Experts speak (publicly) according to the order.
- 4 Decision maker acts.
- 5 True state revealed.
- 6 "Market" compensates experts.

Questions: How to organize debate to obtain best decision?

How do experts behave?

In particular, do experts truthfully report signal?

# RESULTS

- 1** Informative equilibrium if and only if  $p_i > \max\{q_i, 1 - q_i\}$ .  
Experts with “unexpected” signal will herd to preserve reputation.  $p_i$  precision of expert  $i$ ;  $q_i$  beliefs of that expert (when it is her turn).
- 2** Letting best expert speak first suppresses communication.
- 3** But speaking in inverse order of expertise need not be optimal.
- 4** Generally incomplete revelation with herding.
- 5** Otherwise few interesting general results.

# UNANSWERED QUESTIONS

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- 1 Optimal mechanism.
- 2 Different expert incentives.
- 3 Endogenous information.
- 4 Hard information.
- 5 Variations on knowledge assumptions.