Biased Mediators in Conflict Resolution

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Mediated Communication

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Consider a standard sender-receiver game:

- Sender: Privately informed individual.
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The sender can influence the receiver's decision by communicating her private information:

- 1. Direct communication: The sender transmits "cheap-talk" messages.
- 2. Mediated communication: The sender reports her information to a trustworthy mediator, who then recommends an action to the receiver.

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Our assumption is that the mediator chooses the mediation protocol in order to maximize the *ex-ante* welfare of one of the two parties.

- We shall study how an optimal mediation protocol is affected by the mediator's bias.
- For that, our analysis is based on the model of Mitusch and Strausz (2005).

Model

There are two players:



There are two players:

- Privately informed agent.
- Uninformed principal who must make a decision on the real line.

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Monotonicity conditions:

- With "little" loss of generality $\Delta_a := y_a^2 y_a^1 > 0$.
- Minimal alignment of preferences: $\Delta_{\rho} := y_{\rho}^2 y_{\rho}^1 > 0.$

All our results hold under the less restrictive condition $\Delta_a \Delta_p > 0$.

Given any belief $\rho \in [0, 1]$, the principal chooses y to solve:

$$\max_{y} (1-\rho)V_1(y) + \rho V_2(y)$$

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- The optimal action $y(\rho)$ is increasing in ρ .

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Biased Mediators

An agent-biased mediator chooses the mediation plan to solve:

$$U^*(\pi) := \max_{\delta} \mathbb{E}_{\pi \otimes \delta} [U_s]$$

s.t. Truth-telling incentive constraints (α)
Obedience incentive constraints

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Biased Mediators

An agent-biased mediator chooses the mediation plan to solve:

$$U^{*}(\pi) := \max_{\delta} \mathbb{E}_{\pi \otimes \delta} [U_{s}]$$

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Alternatively, a principal-biased mediator chooses the mediation plan to solve:

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This problem was entirely solved by Mitusch and Strausz (J. Law Econ & Organ., 2005).

Optimal Agent-biased Mediation

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- 2. Based on the **true state**, and following a public mediation plan, the mediator recommends an action *y* to the principal.

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The problem for the "omniscient mediator" is

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We have that

$$\widehat{U}(\pi) \leq U^*(\pi) \leq {\sf cav} \; \widehat{U}(\pi)$$

Lemma

The indirect utility function, \widehat{U} , is either concave or convex. Moreover, it is strictly convex iff $2\Delta_a > \Delta_p$.

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Lemma

The indirect utility function, \widehat{U} , is either concave or convex. Moreover, it is strictly convex iff $2\Delta_a > \Delta_p$.

 2Δ_a > Δ_p says that the principal's preferences (across states) cannot differ too much from the agent's preferences (across states).



• $2\Delta_a \leq \Delta_p \Rightarrow \widehat{U} = cav \ \widehat{U} \Rightarrow$ Mediation cannot facilitate communication.

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In the following we assume that $2\Delta_a > \Delta_p$.



Lemma

Suppose $2\Delta_a > \Delta_p$. Then an "omniscient mediator" will induce full disclosure from the agent.

The fully-revealing mediation plan provides the incentives for the agent to tell the truth iff

 $U_1(y_p^1) \geq U_1(y_p^2)$ and $U_2(y_p^2) \geq U_2(y_p^1)$

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In this case we say that there is **no** misrepresentation problem.

The fully-revealing mediation plan provides the incentives for the agent to tell the truth iff

$$U_1(y_p^1) \geq U_1(y_p^2)$$
 and $U_2(y_p^2) \geq U_2(y_p^1)$

In this case we say that there is **no** misrepresentation problem.

Proposition

Suppose $2\Delta_a > \Delta_p$. Then the fully-revealing mediation plan is optimal iff there is no misrepresentation problem.

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We say that type s jeopardizes type s' if $U_s(y_p^s) < U_s(y_p^{s'})$.

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We say that type *s* jeopardizes type *s'* if $U_s(y_p^s) < U_s(y_p^{s'})$.

Lemma

There is at most one jeopardized type.

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• We shall assume, w.l.g., that type 2 jeopardizes type 1.

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We say that type s jeopardizes type s' if $U_s(y_p^s) < U_s(y_p^{s'})$.

Lemma

There is at most one jeopardized type.

- We shall assume, w.l.g., that type 2 jeopardizes type 1.
- The prior probability π measures the likelihood of the misrepresentation problem.

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Suppose for simplicity that $y_a^1 < y_p^1$. Then a parameter configuration must look like in the figure above.



Type 2 jeopardizes type 1: The fully-revealing mediation plan is not incentive compatible for the agent.



Let \hat{y} be the action such that type 2 is indifferent between \hat{y} and y_{ρ}^{1} . Define $\hat{\pi}$ to be the prior belief for which $\hat{y} = y(\hat{\pi})$.



Inducing an action y such that $y > \hat{y}$ is not consistent with incentive compatibility for type 2.



Inducing any action y such that $y<\hat{y}$ cannot improve ex-ante upon \hat{y} unless $\Delta_p>2\Delta_a.$



Let $\hat{\delta}$ be the incentive-compatible mediation plan that induces the recommendations y_p^1 and \hat{y} .

The following table summarizes our results:

	$\pi < \hat{\pi}$		$\pi > \hat{\pi}$
	$\Delta_{p} < 2\Delta_{a}$	$\Delta_{p} \geq 2\Delta_{a}$	$\pi \ge \pi$
Agent	$\hat{\delta}$	Uninformative \hat{s}	Mediation cannot build trust
Principal	0	0	

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The following table summarizes our results:

	$\pi < \hat{\pi}$		$\pi > \hat{\pi}$
	$\Delta_{p} < 2\Delta_{a}$	$\Delta_{p} \geq 2\Delta_{a}$	$\pi \ge \pi$
Agent	$\hat{\delta}$	Uninformative	Mediation cannot build trust
Principal	δ	δ	

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• A necessary condition for mediation to be effective is $\pi < \hat{\pi}$.

The following table summarizes our results:

	$\pi < \hat{\pi}$		$\pi > \hat{\pi}$
	$\Delta_{p} < 2\Delta_{a}$	$\Delta_{p}\geq 2\Delta_{a}$	$\pi \ge \pi$
Agent	$\hat{\delta}$	Uninformative \hat{s}	Mediation cannot build trust
Principal	$\hat{\delta}$	$\hat{\delta}$	

- A necessary condition for mediation to be effective is π < π̂.
- Provided that $\Delta_p < 2\Delta_a$ and $\pi < \hat{\pi}$, mediation is effective *regardless* of the mediator bias.

The following table summarizes our results:

	$\pi < \hat{\pi}$		$\pi > \hat{\pi}$
	$\Delta_{p} < 2\Delta_{a}$	$\Delta_{p}\geq 2\Delta_{a}$	$\pi \ge \pi$
Agent	$\hat{\delta}$	Uninformative \hat{s}	Mediation cannot build trust
Principal	$\hat{\delta}$	$\hat{\delta}$	

- A necessary condition for mediation to be effective is π < π̂.
- Provided that Δ_p < 2Δ_a and π < π̂, mediation is effective regardless of the mediator bias.
- Whenever π < π̂ but Δ_ρ ≥ 2Δ_a, only principal-biased mediation will be effective.



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