The Cognitive Costs of Unravelling under Monitoring and Lenience

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December 12, 2023

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     H1: costly lying

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     H2: costly lying

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  - Do receivers experience a cognitive moral hazard with monitoring?

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- **Research Questions**:
  - To what degree are monitoring mechanisms effective?
  - Do receivers experience a cognitive moral hazard with monitoring?
  - How do effects of costly lying and lenience vary with the plausibility of lying by senders?

Game Description

1. **Non-unraveling Model with Monitoring:**
   - $u_S = \begin{cases} a_R & \text{if not lying} \\ \delta a_R & \text{if lying} \end{cases}$
   - $u_R = -(a_R - \omega)^2$

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   - $a_S = \begin{cases} \text{Messages } \{\omega, \emptyset\} & \text{with probability } \gamma \\ \text{Message } \{\emptyset\} & \text{with probability } 1-\gamma \end{cases}$
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   - $a_S = \begin{cases} \text{Reports} & \text{if has information and } \omega > \overline{\omega} \\ \text{Does not Report} & \text{if does not have information or if } \omega \leq \overline{\omega} \end{cases}$
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   - $\overline{\omega} = \dfrac{\sqrt{(1-\gamma)(1-(1-\delta)^2\gamma)} - (1-\gamma)}{(2-\delta)\gamma}$

Experiment Design

- **Factorial Design**: 2x3

T	Treatment Arm	$\gamma = 0$	$\gamma = 0.2$
$T = 0$	No Monitoring ($\delta = 1$)	G1	G2
$T = 1$	Monitoring (Only Sender Knows $\delta = 0.75$)	G3	G4
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  - No feedback about other players' gain (to prevent social considerations)

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- Costly monitoring: (**H1A:** $\beta_1 > 0$) & (**H1B:** $\theta_1 > 0$) where $T_i \in \{0, 1\}$

$$\mathbf{I}[a_{i,S} = \omega] = c_1 + \beta_1 \mathbf{I}[T_i = 1] + \theta_1 \mathbf{I}[\gamma_i = 0.2] + \nu_1 \mathbf{I}[T_i = 1]\mathbf{I}[\gamma_i = 0.2] + \epsilon_{i,S}$$

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- Lenience: (**H2A:** $\beta_2 > 0$) & (**H2B:** $\theta_2 > 0$) where $T_i \in \{1, 2\}$

$$a_{i,R} = c_2 + \beta_2 \mathbf{I}[T_i = 2] + \theta_2 \mathbf{I}[\gamma_i = 0.2] + +\nu_2 \mathbf{I}[T_i = 2]\mathbf{I}[\gamma_i = 0.2] + \epsilon_{i,R}$$

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- Composite Effect: (**H3A:** $\beta_3 < \beta_1$) & (**H3B:** $\theta_3 > 0$) where $T_i \in \{0, 2\}$

$$\mathbf{I}[a_{i,S} = \omega] = c_3 + \beta_3 \mathbf{I}[T_i = 2] + \theta_3 \mathbf{I}[\gamma_i = 0.2] + \nu_3 \mathbf{I}[T_i = 2]\mathbf{I}[\gamma_i = 0.2] + \epsilon_{i,S}$$

Questions

- Expectations about the interaction terms?
- Any creative way to use the elicited beliefs?
- Can we use a rational inattention or similar setup to estimate receivers' behavior?