Investigating a cover up: an experimental study

Marlene Guraieb New York University September 2, 2016

Political investigation and cover-ups

- Distinctive features:
 - investigations may resolve issue at hand + reveal information in other issues
 - successful investigations –produce dispositive verdicts– depend both on evidence revealed and on investment into information acquisition
- Disclosure of information by politicians:
 - higher probability of dispositive evidence after investigation AND
 - higher probability that audience learns something else about them
- Good (bad) types have weaker incentives to reveal (hide)
- Model: endogenous information acquisition by a principal scrutinizing an agent who can choose how much evidence to reveal

Theory: a model of cover-up

- Two players: a (P)rincipal and an (A)gent
- As are of type (τ), where τ is correlated with θ (when P observes θ she learns something about τ)
- Payoffs:
 - A wants to stay in office
 - P wants to retain good agents
- Actions:
 - P chooses how much (costly c) information to acquire, i
 - A chooses how much evidence to reveal, r
 - After of investigation (m) is observed, P chooses whether to retain
- Investigation:
 - i & r determine the distribution of m
 - m can reveal τ , θ or nothing, \emptyset
 - $Pr(m = \theta)$ & $Pr(m = \tau)$ go up with r and i

Theory → Lab

- 1. Given $m = \emptyset$, posterior on τ is decreasing in i
 - The more rigorous the investigation, the more punitive P should be when $m=\emptyset$
 - Intuition: "demand effect". Worse agents hide more and are more likely to produce $m = \emptyset$
- 2. Four types of As induced by θ, τ have different strategies:
 - ∘ Good τ s in good θ → (Dominant) Reveal (High r)
 - \circ Bad τ s in good $\theta \rightarrow$ prefer to *mis-match*
 - Good τ in bad $\theta \rightarrow$ prefer to *match*
 - ∘ Bad τ s in bad θ → (Dominant) Hide (Low r)
- 3. Varying c can change optimal retention choice when $m = \emptyset$
 - Higher $c \to \text{lower } i$, (R)etain if $m = \emptyset$
 - Lower $c \rightarrow \text{higher } i$, (F)ire if $m = \emptyset$

Picking apples (and covering them up)





- 1. Coin flip chooses barrel (θ) and then picks an apple (τ) for A and shows her.
- 2. *P* (uninformed) picks between *i*^H and *i*^L (paying *c* if *i*^H)
- 3. A sees i, and chooses r^H or r^L

$\Delta(m)$		
	i ^L	i ^H
	M = 0.1	M = 0.4
r^L	B = 0.2	B = 0.4
	∅ = 0.7	$\emptyset = 0.2$
	M = 0.2	M = 0.8
r^H	B = 0.3	B = 0.2
	$\emptyset = 0.5$	$\emptyset = 0$

Picking apples (and covering them up)





- 1. Coin flip chooses barrel (θ) and then picks an apple (τ) for A and shows her.
- P (uninformed) picks between i^H and i^L (paying c if i^H)
- 3. A sees i, and chooses r^H or r^L
- 4. m is generated by $\Delta(m)$ and shown to P
- 5. *P* chooses whether keep her partner's apple and gets \$ only if it's *good* (coin flip for \$ if she fires)
- 6. A gets \$ only if P keeps her apple

Experimental design

Lab Setup

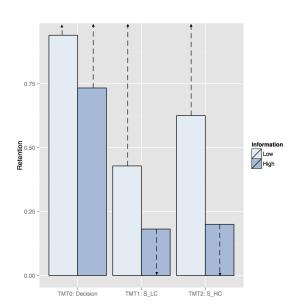
118 undergrad subjects, 5 sessions at ITAM (so far). Subjects alternate in roles between *P*s and *A*s for 20 rounds with random round payoffs.

Treatments

- TMT0 Decision-theoretic. Agents are "sitting ducks": choice of r is a coin flip, and payoffs are determined in the same way as in strategic treatments.
- **TMT1** Strategic low cost. Equilibrium: high investment (i^H) and if $m = \emptyset$, F
- **TMT2** Strategic high cost. Equilibrium: low investment (i^L) and if $m = \emptyset$, R

 \forall **strategic TMT**s: given $i^H \& m = \emptyset \rightarrow R$; given $i^L \& m = \emptyset \rightarrow F$.

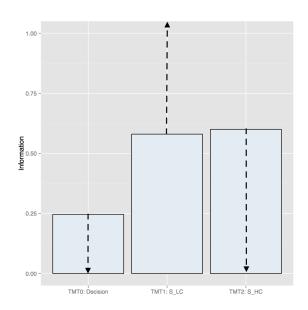
Results: Retain or fire?



Retention rate when $m = \emptyset$ by treatment and investment decision. Dotted line represents difference between empirical values and theoretical predictions (Per> 5).

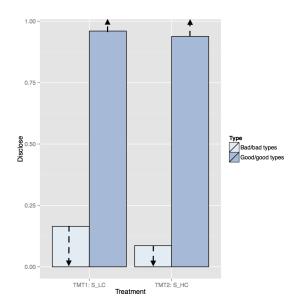
Results: Acquiring information

Information acquisition by treatment (Per > 5).



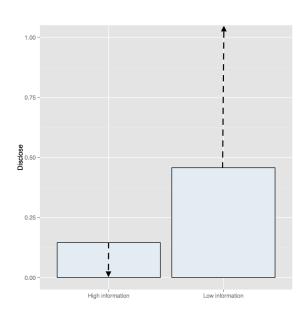
Results: Agents

Disclosure by treatment and agent type (Per > 5). Dominant strategies.



Results: Agents

Disclosure by treatment and agent type (Per > 5). Mismatch.



Conclusion

- Experiment (so far) shows empirical evidence of behavioral plausibility of theory
- Relevance: this kind of inference is at play in various political institutions
 - Agents make "double gamble on revelation"
 - Often investigations are inconclusive but not necessarily uninformative
- Also: consistent with standard results (Dickson, Hafer, Landa (2009), Martinelli (2006))