Aghion & Tirole *JPE* ‘97

- Superior often “rubber-stamps” subordinate’s proposal

  Shareholders → Board of directors → CEO → Division VP …

**Q:** Why (and how) would actor with formal authority cede real authority?

**A:** Knows that other actor has better info and sufficiently similar preferences
Aghion & Tirole (cont.)

• 3 potential projects (k = 1, 2, 3)
• Benefits $B_k$ to P, $b_k$ to A
• One project has $B_k = b_k = -\infty$
• Other payoffs are
  – $B_k = B$ or 0 \quad (B > 0)
  – $b_k = b$ or 0 \quad (b > 0)
• “Alignment” probability = $\alpha$
  – Prob. $\alpha \rightarrow (B, b)$ and $(0, 0)$
  – Prob. $1-\alpha \rightarrow (B, 0)$ and $(0, b)$
Aghion & Tirole (cont.)

• A pays cost $c_A(e)$ for soft info
  – Prob. $e$: A learns all own payoffs
  – Prob. $1-e$: A learns nothing

• P pays cost $c_P(E)$ for soft info
  – Prob. $E$: P learns all own payoffs
  – Prob. $1-E$: P learns nothing

• P-formal authority ✓

• A-formal authority ?
P-formal authority:

- P informed $\rightarrow$ chooses B
- P uninformed but A informed $\rightarrow$ A chooses b $\rightarrow$ P receives $\alpha B$
- Equilibrium efforts ($E^*$, $e^*$)
  \[
  U_P = EB + (1-E)e\alpha B - c_P(E)
  \]
  \[
  U_A = E\alpha b + (1-E)eb - c_A(e)
  \]
- With probability (1- $E^*$)$e^*$, A has real authority (rubber-stamping occurs)
- Terrific!
Aghion & Tirole (cont.)

A-formal authority:

- A informed $\rightarrow$ chooses b
- A uninformed but P informed $\rightarrow$ P chooses B $\rightarrow$ A receives $\alpha b$
- Equilibrium efforts $(E^{**}, e^{**})$ $e \uparrow, E \downarrow$
  
  $$V_A = eb + (1-e)E\alpha b - c_A(e)$$
  $$V_P = e\alpha B + (1-e)EB - c_p(E)$$

- With probability $e^{**}E^{**}(1-\alpha)$, “P’s organization” is choosing $(0, b)$ over $(B, 0)$ and knows it

- Strange?
Decentralization @ J&J
(Aguilar & Bhambrri ‘83)

• “Decentralization = Creativity = Productivity”
  – 140 (220) local operating companies
  – Exec. Com. = 11 (but Tylenol w/ codeine)
  – $\pi$-center, autonomy, retained earnings

• Hospital Services Group “3 years late”
  – Revising promises w/ LOCs?
  – New promises @ HSG?
    • Service group? Cost center? Staffing?
Empowerment @ Oticon

(Foss *Org. Sci.* ‘03)

- **Oticon**: hearing aids in Denmark
  - World leader in 70s, dying in 80s (same exec team 30 yrs)
  - 4/18/90 “Thinking the Unthinkable” (6pp.)

- “Spaghetti organization” (flexible but coherent?)
  - Tuborg, trolleys, tube, (not) titles
  - Self-defined and –managed teams + PPC (Kolind + 3)

- Worked! (for a time)
  - Found in-ear from ’70s; prod devp time cut 50%
  - 1/2 of 93 sales from 91-93 products
  - PPC reasserts control: mistake, opportunism, confusion?

Was there a mistake?
Real Empowerment

• Very important (≠ hair styles & dress codes)

• Management ≠ external institutions
  – Involuntary servitude, non-competes
  – Lawyer-client decision rights

• Management ≠ formal contracts within firms
  – Union as contracting party
  – Courts recognize contracts between “legal persons”

• Delegation / empowerment = relational contract
  – Static model as reduced form?
• Formal authority resides at the top, but middle managers have some authority

• Below the top, decision rights can be loaned, not owned

• Empowerment is a promise
  – Johnson & Johnson
  – Oticon
  – Xerox Technology Ventures
  – …
BGM 99  (cont.)

- Project’s payoffs = $x$ to $A$, $y$ to $P$
  - $x_L < 0 < x_H$
  - $y_L < 0 < y_H$

- **Informed boss**: $A$’s proposal reveals $y$ to $P$
  - $P$’s SR incentive: reject $y_L < 0$?

- **Uninformed boss**: $A$’s proposal reveals nothing to $P$
  - $A$’s SR incentive: propose $x_H > 0$?
Agent incurs cost $c(a)$ to search for project
  •  $\text{Prob } (x = x_H) = a$
  •  $\text{Prob } (y = y_H | x = x_H) = p$

Myopic centralization (ratify only $y_H$)
  •  $V^C \equiv a^C p(x_H + y_H) - c(a^C)$

Informal delegation (ratify all $y$)
  •  $V^D \equiv a^D (x_H + E[y | x_H]) - c(a^D)$

Welfare comparison
  •  Incentive effect ($a^D > a^C$)
  •  Implementation effect ($x_H + y_L < 0?$)
BGM 99  (cont.)

Informed boss:

• When $V^D > V^C$, informal delegation as equilibrium of repeated game?

• $y_L + (1/r)V^D > 0 + (1/r)V^C$

Uninformed boss:

• When $V^C > V^D$, informal authority as equilibrium of repeated game?

• $0 + (1/r)V^C > x_H + (1/r)V^D$
BGM 99  (cont.)

• Results:

  1. Authority $\rightarrow$ empowerment (as in contractual delegation)

  2. Expected and extreme values matter

  3. Different information structures $\rightarrow$ different reneging temptations (for different parties)

  4. Static model (with contractual delegation) not necessarily correct reduced form (eg, Levin 03)

  5. Spinoffs