

Promises, Promises:
Why Organizations Are Dysfunctional
(and What Economics Might Do
About It)

B. Gibbons
MIT and NBER

“Cultures of Dysfunctional Organizations”
Feb. 7, 2016

Detailed Outline

I. Theory: Orgzns *Should* Be Dysfunctional

- A. Boundary of the Firm** (Coase, Williamson, Hart, ...)
- B. Internal Organization** (Simon, March, Pfeffer, ...)
- C. Coase Meets Heckman** (Arrow's Theorem vs. Shapley Value)

II. Data: PPDs Among SSEs (orgzn vs. instn; "pockets")

- 0. Leibenstein's X-inefficiency**
- A. Within an industry** (e.g., Syverson '04)
- B. Within an organization** (e.g., Chew et al. '90)
- C. Who cares?**

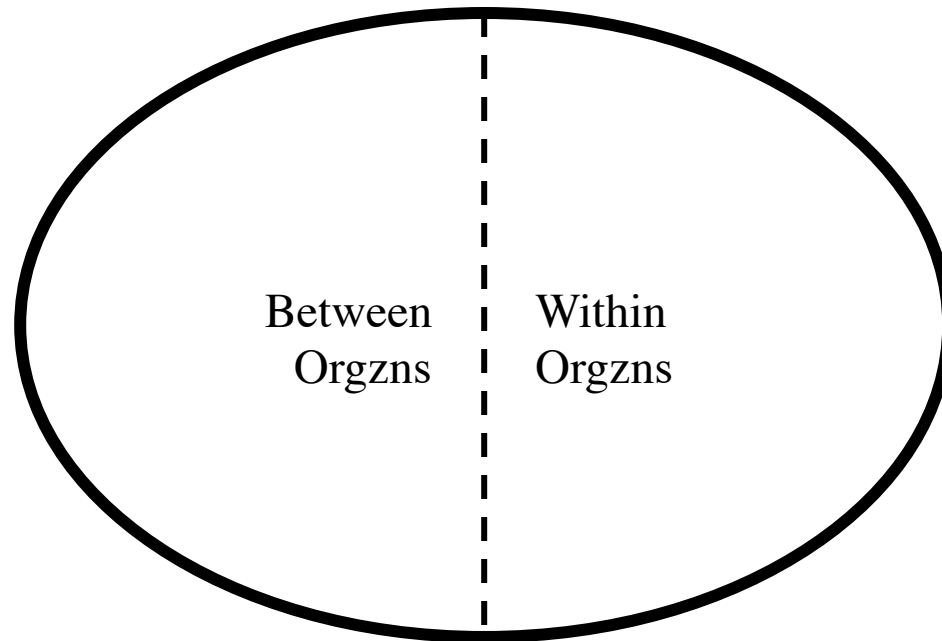
III. Claim: Many Successful Orgzns Rely on Promises

- A. “Relational Contracts and Orgz’l Capabilities” (GH ’12, ’13)
 - Discretionary Bonus
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- B. *Credibility* problem (independent approach to interdependence?)
- C. Why Don’t the Laggards Catch Up?
- D. *Clarity* problem (stop line @ Toyota? tenure?)
- E. *Organizational* culture (& leadership)? (Schein vs. “Hofstede”)
 - “Formal Measures in Informal Mgmt.” (AER P&P ‘15)

IV. What Might Economics Do About It?

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Orgs *Should* Be Dysfunctional (!?)



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Vertical Integration:

Vertical integration;
Supply chains

Horizontal

Integration:

Conglomerates;
Corporate strategy

Contracts:

Formal; Relational

Hybrids:

Alliance; Network;
Joint Venture

Decision-Making:

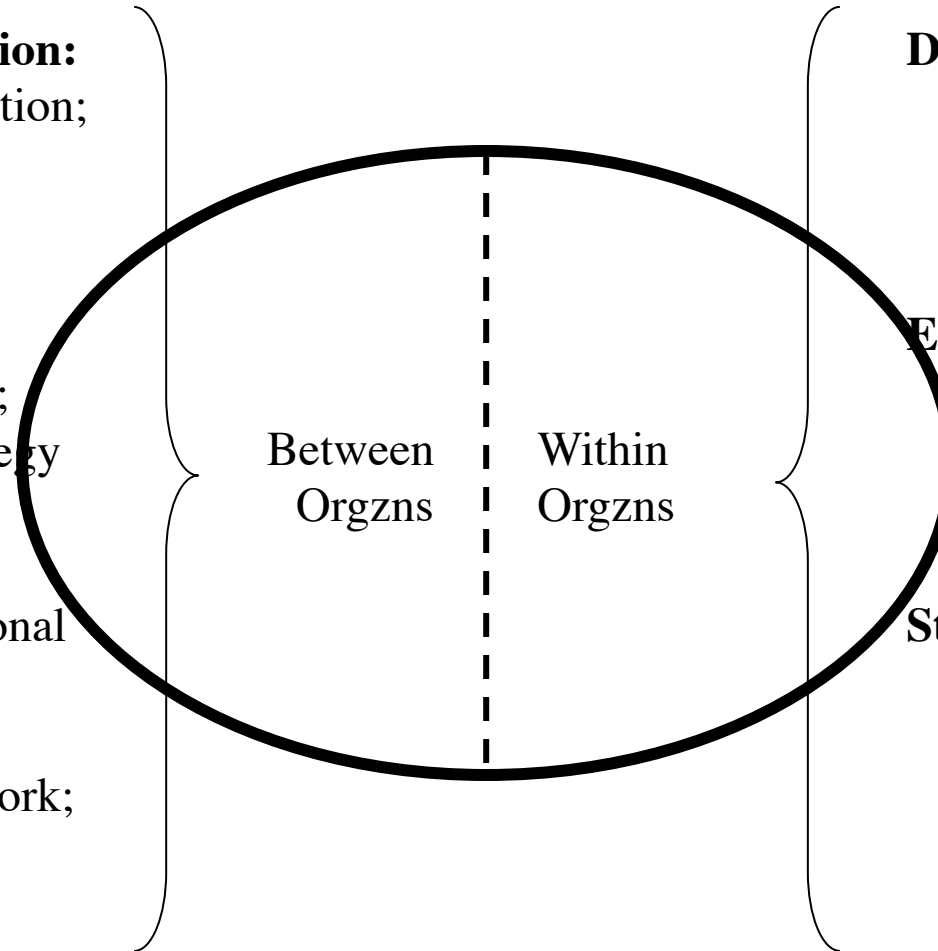
Power & Politics;
Culture & Leadership;
Mgmt. & Productivity

Employment:

Pay for performance;
Skill development;
HR practices

Structures & Processes:

Hierarchy; Alternative
forms; Resource
allocation;
Transfer pricing



THE HANDBOOK OF
ORGANIZATIONAL
ECONOMICS



EDITED BY
ROBERT GIBBONS
& JOHN ROBERTS

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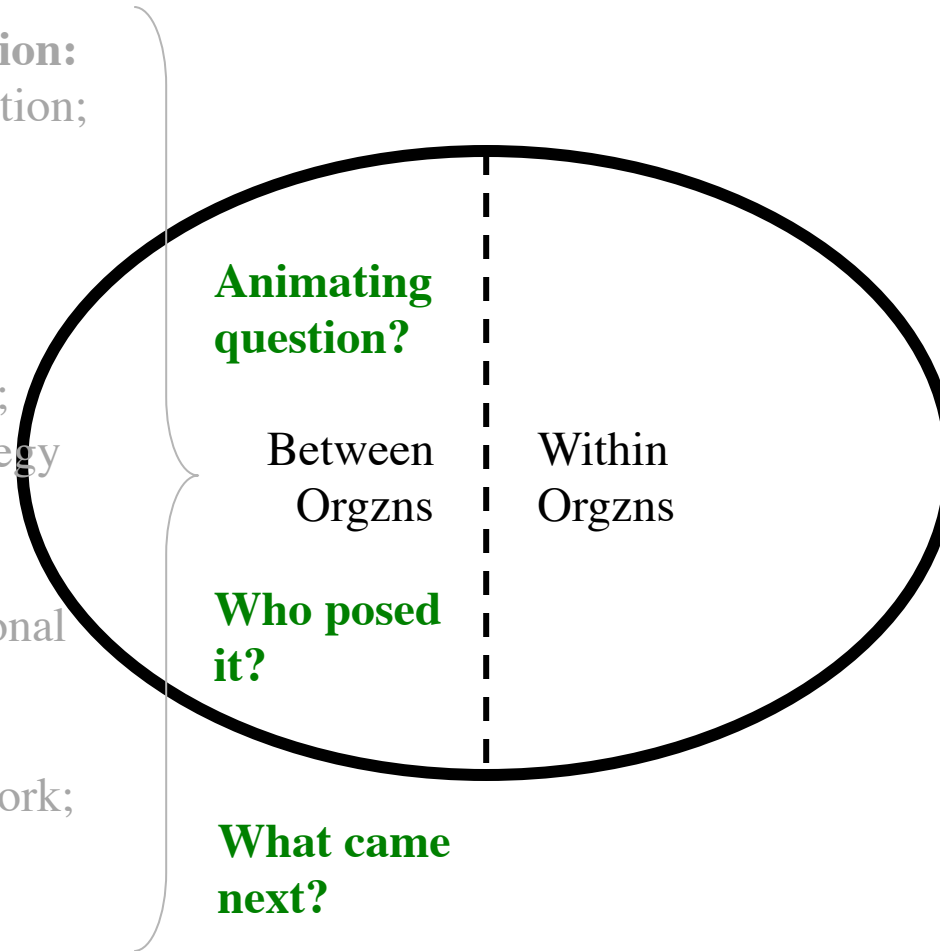
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**If *markets*
are so good,
why are
there *firms*?**

Between
Orgzns

Within
Orgzns

Coase '37

**Williamson
71, 73, 75, 79
KCA 78
GHM 86, 90
...**

**If *contracts*
are so good,
why are
there *bosses*?**

Orgs *Should* Be Dysfunctional (?!)

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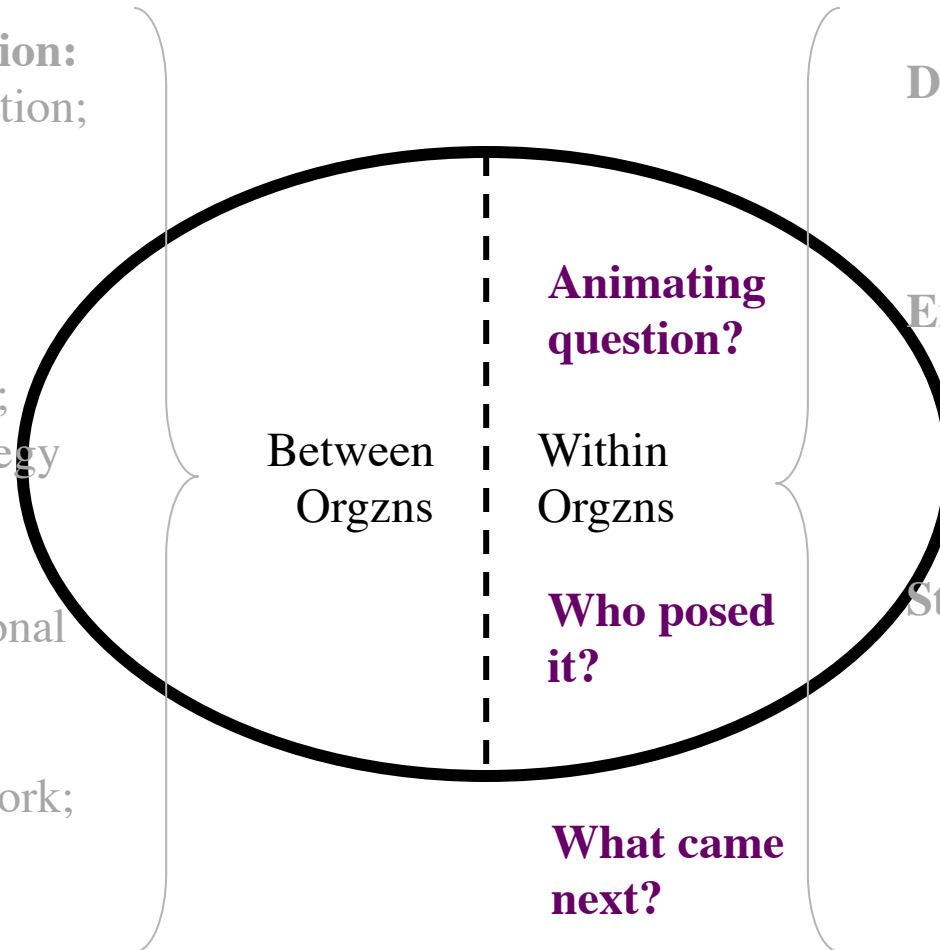
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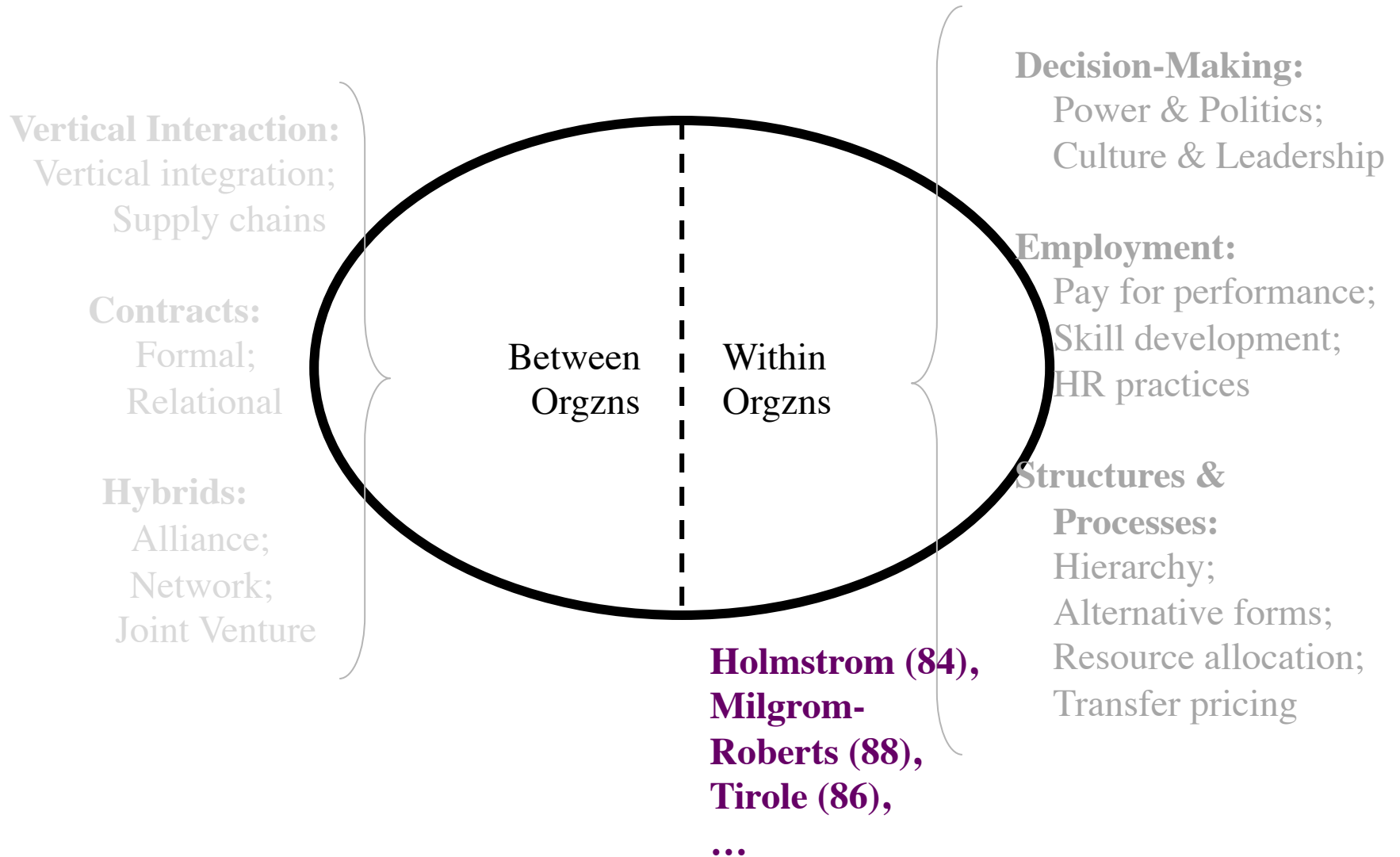
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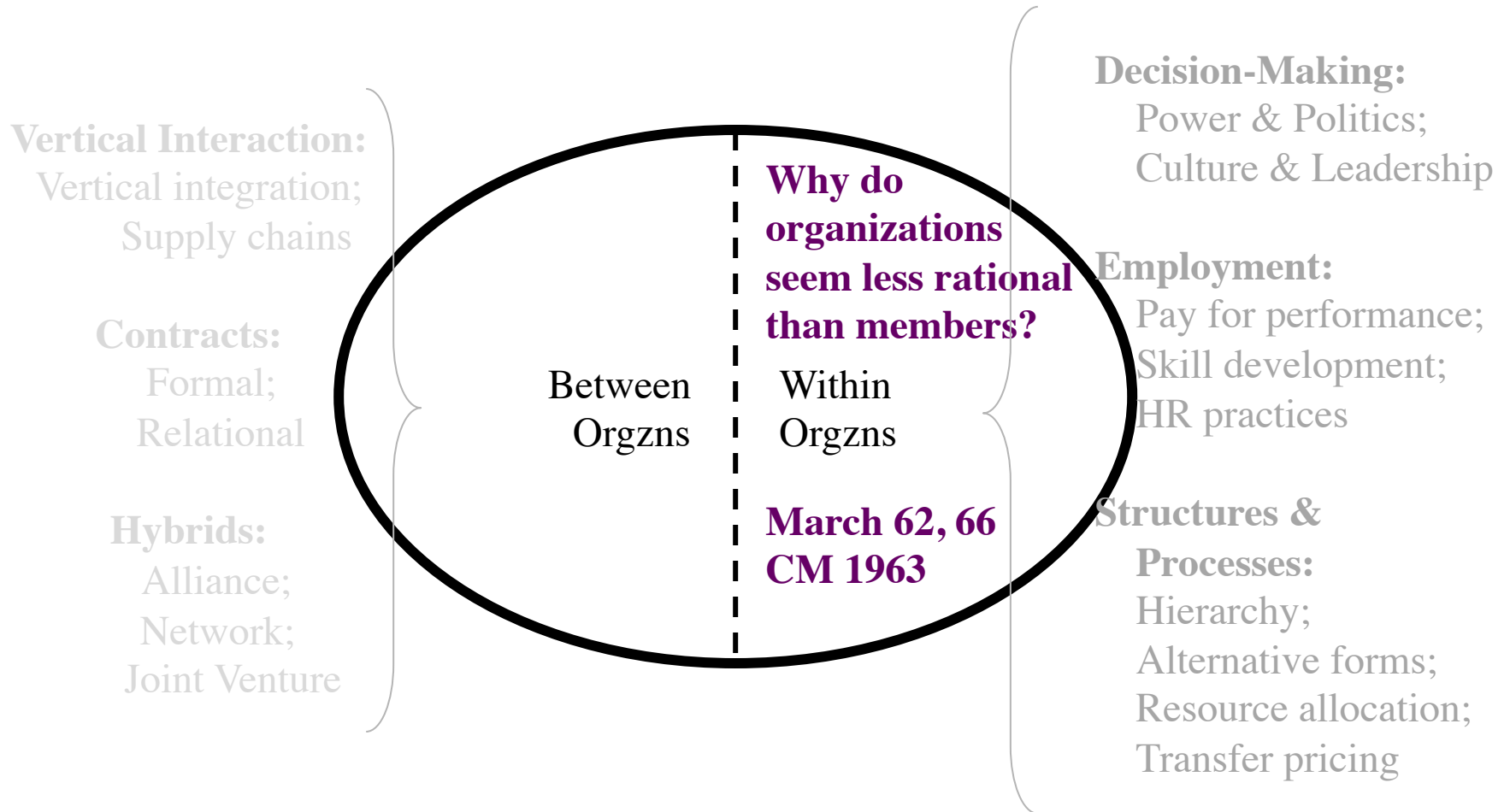
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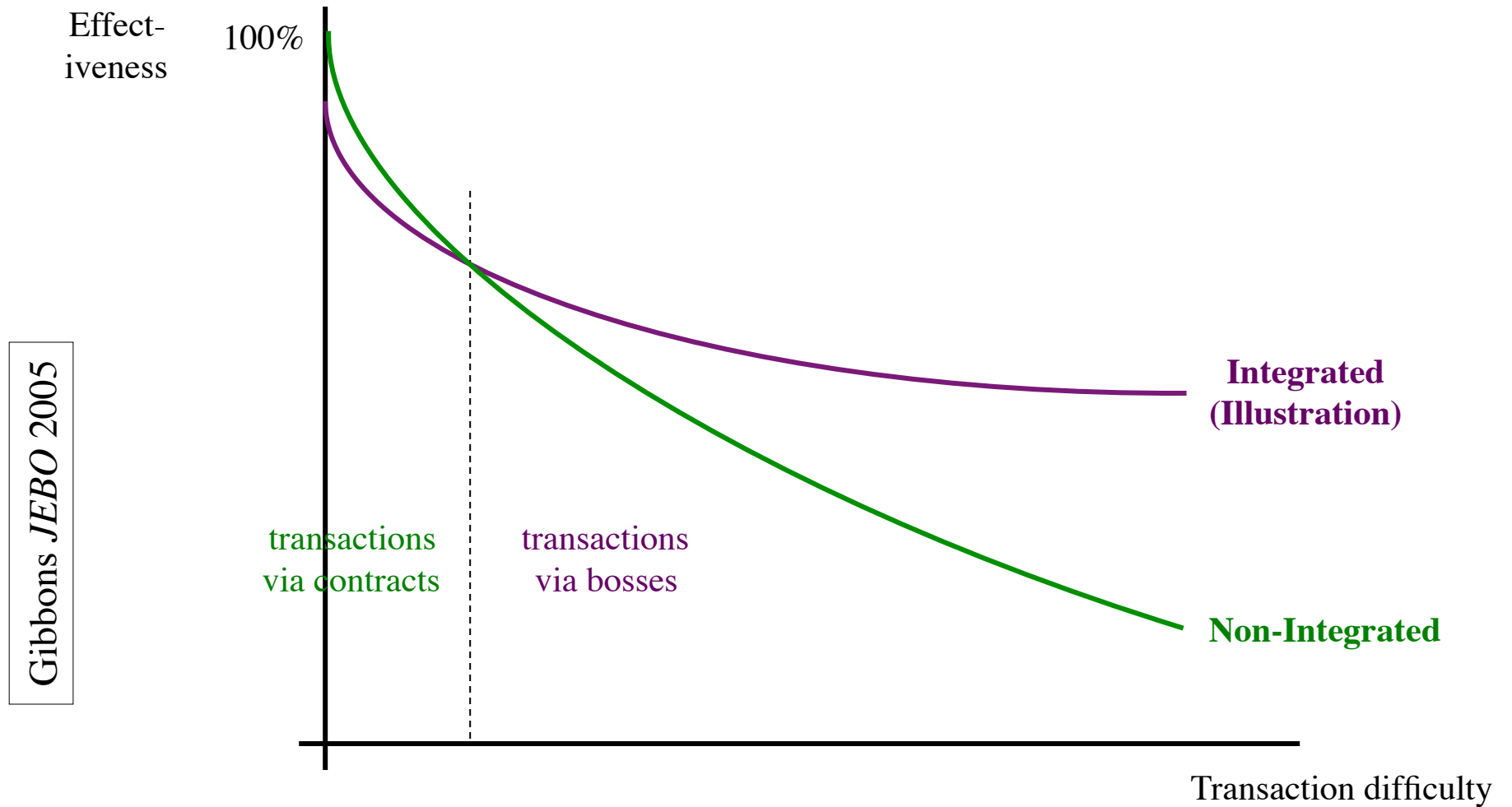
“The Business Firm as a Political Coalition”

(March, 1962)

“We have argued that **the business firm is basically a coalition without a generally shared, consistent set of goals. Consequently, we cannot assume that a rational manager can treat the organization as a simple instrument** in his dealings with the external world. Just as he needs to predict and attempt to manipulate the ‘external’ environment, he must **predict and attempt to manipulate his own firm.**”

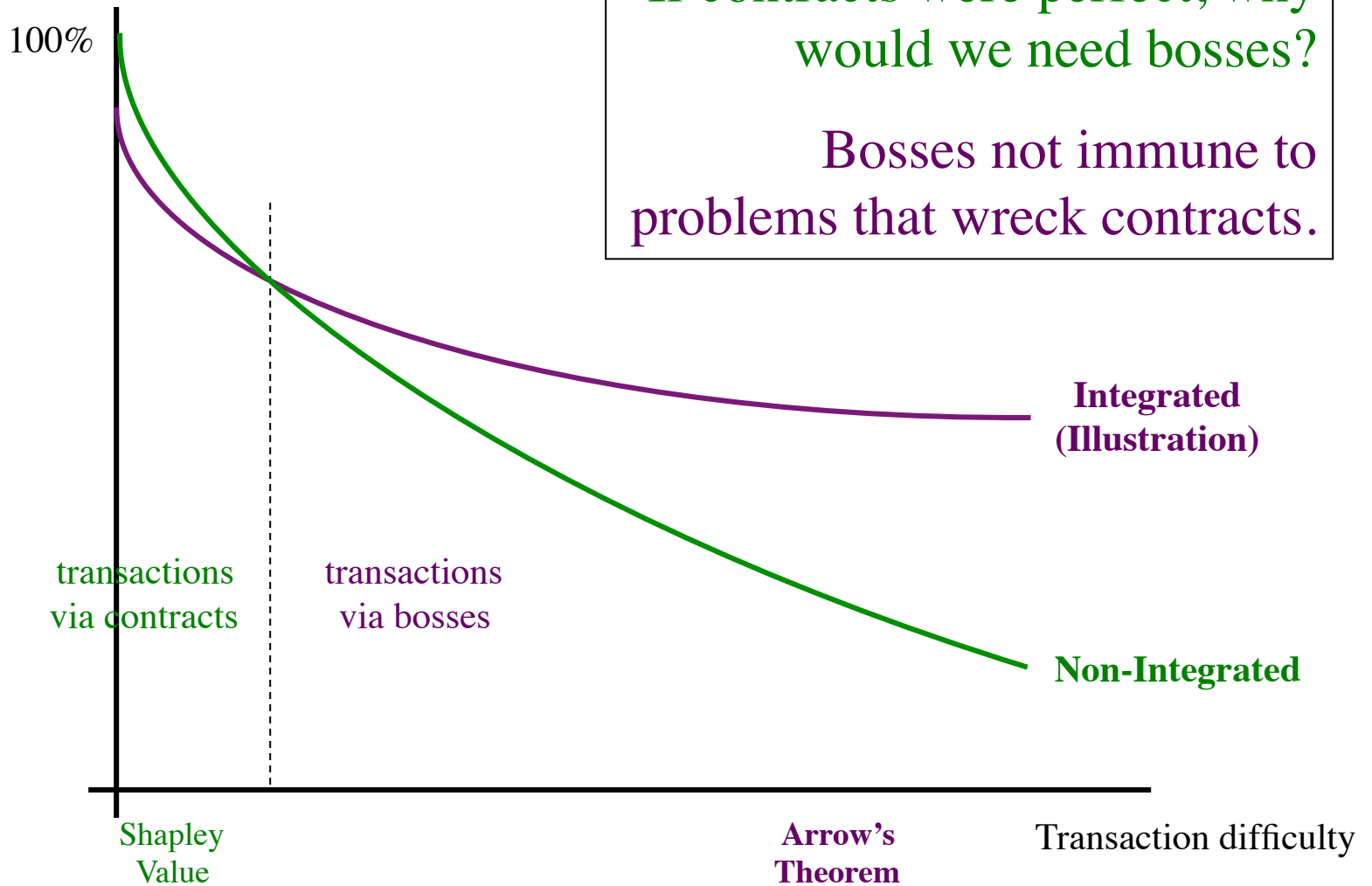
Cyert and March, 1963

Coase Meets Heckman



Coase Meets Heckman

Effectiveness



If contracts were perfect, why would we need bosses?

Bosses not immune to problems that wreck contracts.

Gibbons *JEBO* 2005

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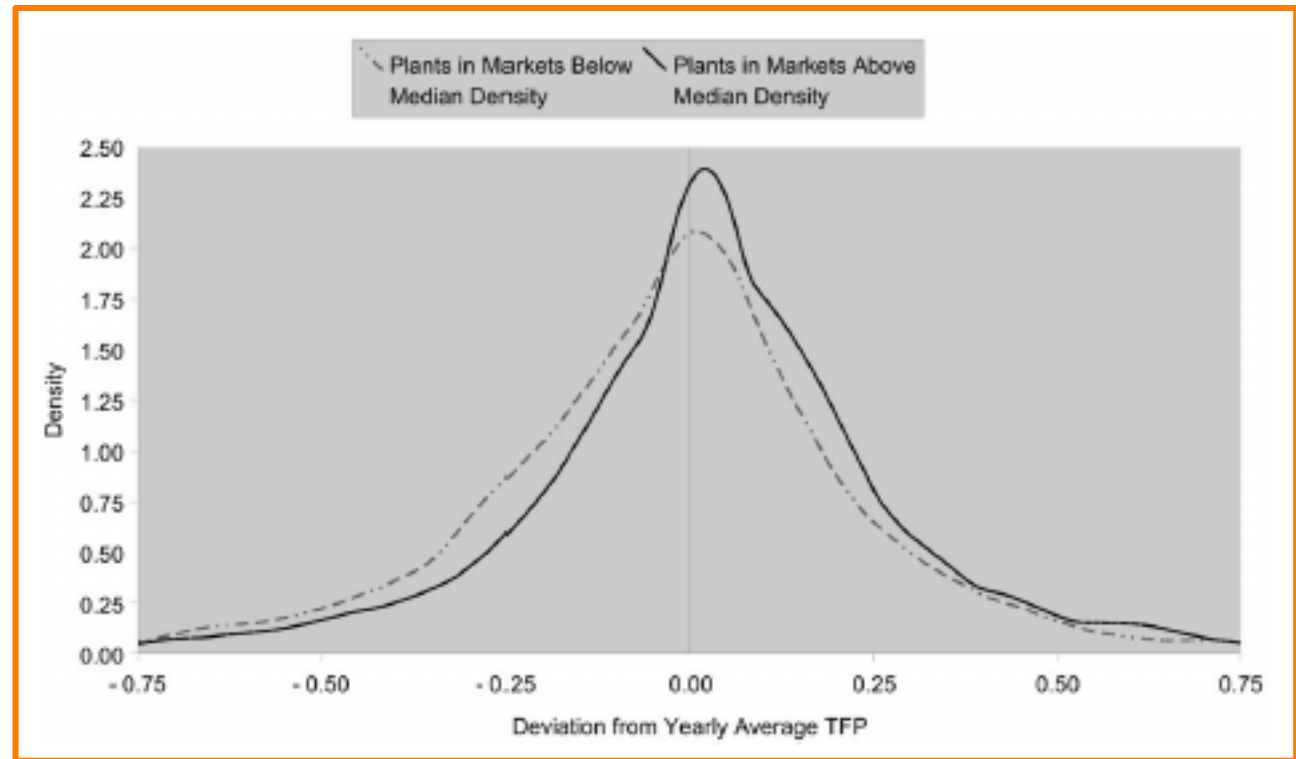
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Productivity Dispersion & Competition

- census data on 5,200 US ready-mix concrete producers in 1982, 1987, 1992
- why concrete?
 - high transportation costs → multiple markets
 - homogeneous good with physical output measure
 - available instrument for concrete market density = construction industry



Results

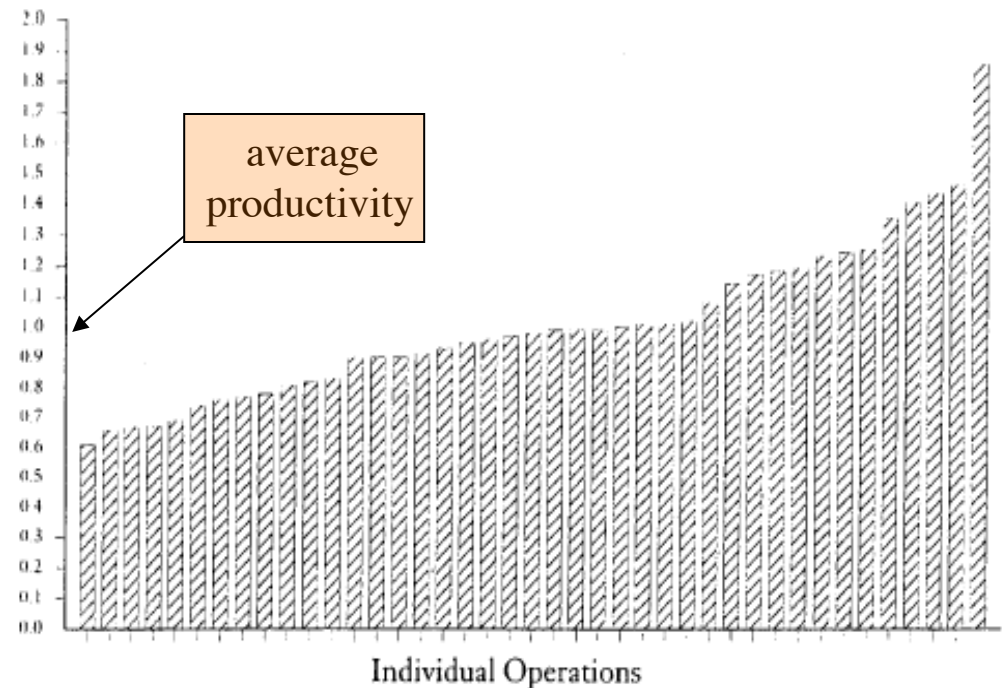
1. Higher productivity and less dispersion in high density (more competitive) markets
2. But almost as much dispersion in less competitive markets

Syverson *JPE* 2004

Productivity Dispersion within Firms

- Commercial food division of a large multi-business firm with **40 operating units** that prepare, deliver, and set-up food
- All 40 sites are very similar along multiple dimensions: located in the US, employ low-skilled labor, utilize same technology, serve similar customers, produce similar products
- Multifactor productivity index computed as standardized output (meals & set-ups) divided by standardized inputs (labor & capital costs)
- Use regression analysis to adjust for local labor markets, size of local market, unionization, age of equipment, product quality, and local monopoly

Figure 5-1 Multifactor Productivity Index



Before Controls: Most productive plant is 3 times as productive as least productive plant

After Controls: Most productive plant is 2 times as productive as least productive plant

Chew, Bresnahan, & Clark 1990

Who Cares (About PPDs)?

A. Strategy / Development

- Explain?
- Fix? (vs. bad luck!)
- Firms
- Supply chains, ...
- Hospitals, schools, agencies, ...

B. Policy

- Antitrust, Trade, Research, Climate, ...

C. Economics

- Industry dynamics
- International trade

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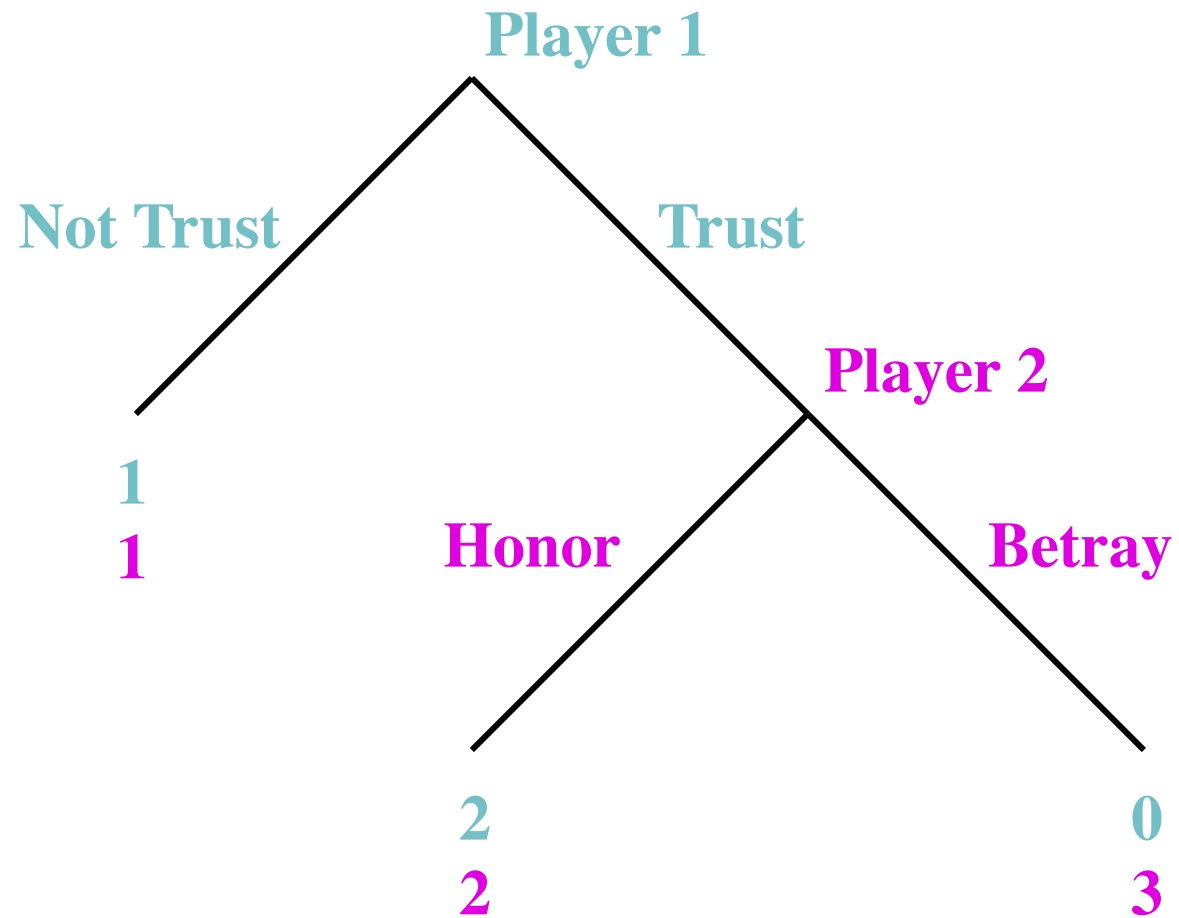
Discretion

- Boss — subordinate
- Peer — peer
- HQ — department
- Department — department
- Organization — organization

- Vertical or horizontal
- People, groups, firms, ...

Bosses have **discretion** ... & so do peers ... and subordinates.

A Credibility Problem



Relational contract (n.)

1. A promise you can believe in
2. A shared understanding of parties' roles in and rewards from collaboration (so rooted in the details of the parties' relationship that it cannot be shared with a court)
3. An equilibrium of a repeated game

Why Don't the Laggards Catch Up?

(~ J. Rivkin)

- Perception:
 - They don't know they're behind.
- Inspiration:
 - They know they're behind, but they don't know what to do.
- Motivation:
 - They know what to do, but they don't want to do it.
- Implementation:
 - They know they're behind, they have a clear view of what should be done, they are working like mad to do that, but they can't get the organization to get it done.

Perception, Motivation?



- Management practice *could* be light switch:
 - Easy to describe
 - Straightforward to implement

Inspiration?



- Management practices *could* be light switches:
 - Each one easy to describe & simple to implement
 - But complicated interactions (bumpy landscape)

Thought Experiment

What can an economist do to help a fixed set of people be more productive together?

Liebenstein: “Wonder if they’ve *discovered* how to play cooperate-cooperate, while the others are *stuck* in defect-defect?” (1969, 1987)

Organizational Culture & Leadership

- “[A] pattern of shared basic assumptions that was *learned by a group as it solved its problems* of external adaptation and internal integration, that has worked well enough to be considered ... the correct way to perceive, think, and feel in relation to those problems” (Schein, 3rd ed., 2004: 17, emphasis added)
- “[T]he problems of *organizational leadership and organizational culture are basically intertwined*. ... [L]eadership is the fundamental process by which organizational cultures are formed and changed.” (Schein, 1st ed., 1985, emphasis added)

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A. Regressions

Are Changes in ICU Safety Culture Associated with Changes in Bloodstream Infections?

R. Gibbons, T. Wang, N. Beaulieu,
Y.-J. Hsu, J. Marsteller, E. Martinez,
S. Watson, and P. Pronovost

ΔBSI Associated w/ ΔSAQ?

$$BSI_{it} = \theta_i + \kappa_t + \alpha * n_{it} + \mu_i * n_{it} + \beta * n_{it} * SAQ_{it} + \delta * n_{it} * X_{it}$$

Marginal Effect of SAQ on BSI Count in a FE Model

| | (1) | (2) | (3) | (4) |
|----------------------------|--|---|---------------------------|------------------|
| | Item 41 | Item 57 | Perceptions of Management | Teamwork Climate |
| | I am frequently unable to express disagreement with staff physicians/intensivists in this ICU‡ | Error reporting is rewarded in this ICU | Composite | Composite |
| Marginal Effect of Culture | -0.64** (0.009) | -0.95** (0.008) | -1.11** (0.003) | -0.50 (0.076) |

$$ME = \beta * \bar{n} * \sigma_{SAQ}$$

* 0.05 ** 0.01 *** 0.001

Avg. BSI: 2.86 → 1.58

Table 3: Marginal Effects of Distinct Dimensions of Culture Measures on BSI Count

| | (1) | (2) | (3) | (4) | (5) |
|--|------------------|-------------------|------------------|------------------|----------------------|
| Marginal Effect of Perceptions of Management | -1.01* (0.01) | -0.96* (0.01) | -- | -0.92* (0.02) | -2.48*** (<0.001) |
| Marginal Effect of Teamwork Climate | -- | -- | -- | -- | -1.00 (0.17) |
| Marginal Effect of Safety Climate | -- | -- | -- | -- | 0.57 (0.50) |
| Marginal Effect of Job Satisfaction | -- | -- | -- | -- | 2.11** (0.006) |
| Marginal Effect of Stress Recognition | -- | -- | -- | -- | 0.23 (0.29) |
| Marginal Effect of Working Conditions | -- | -- | -- | -- | 0.64 (0.17) |
| Marginal Effect of Speaking Up | -0.45 (0.16) | -- | -0.39 (0.12) | -0.25 (0.38) | -0.70 (0.05) |
| Marginal Effect of Error Reporting | -- | -0.77** (0.01) | -0.82* (0.03) | -0.69* (0.02) | -1.29*** (<0.001) |

--This table reports the marginal effect (ME) of culture on BSI count, defined as the estimated impact (β) that a one standard deviation increase in the culture measure ($\sigma_{culture}$) would have on BSI count calculated at the mean number of catheter days ($\bar{n}=1314$ catheter days).

$$ME = \beta * \bar{n} * \sigma_{culture}$$

Coefficients (β) come from a fixed-effect (FE) model that is a modified version of the primary model and uses two (or more) measures of culture

$$BSI_k = C + \Theta_1 + \kappa_k + \alpha * n_k + \beta_1 * n_k * Culture_{1k} + \beta_2 * n_k * Culture_{2k} + \delta * n_k * X_k + \epsilon_k$$

See Table 2 Notes for details.

--Columns 1-4 report marginal effects from models with two (or three) measures of culture (Perceptions of Management, Speaking Up, Error Reporting) and column 5 reports marginal effects from a model including all 8 SAQ measures.

--Significance levels indicated (* 0.05 ** 0.01 *** 0.001). P values reported in parentheses below marginal effect.

B. Models

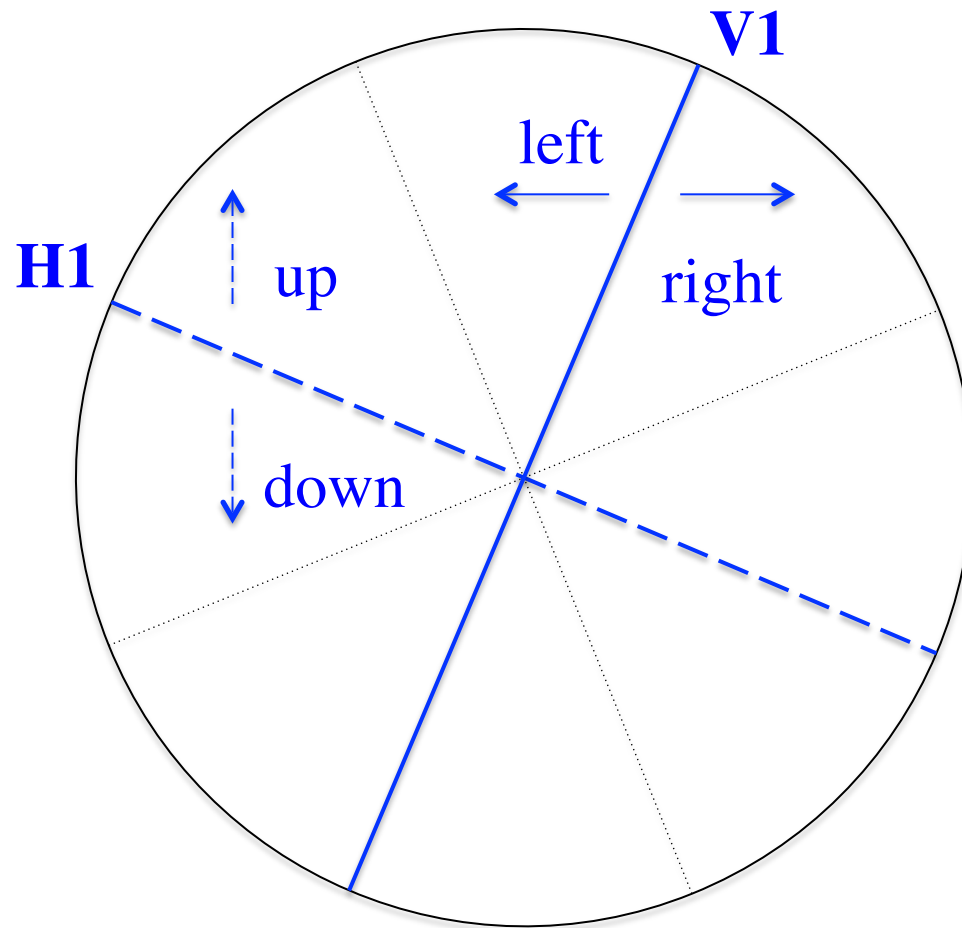
Culture from Cognition?

How Categorizations Can Shape Interactions (and How Leaders Can Shape Categorizations?)

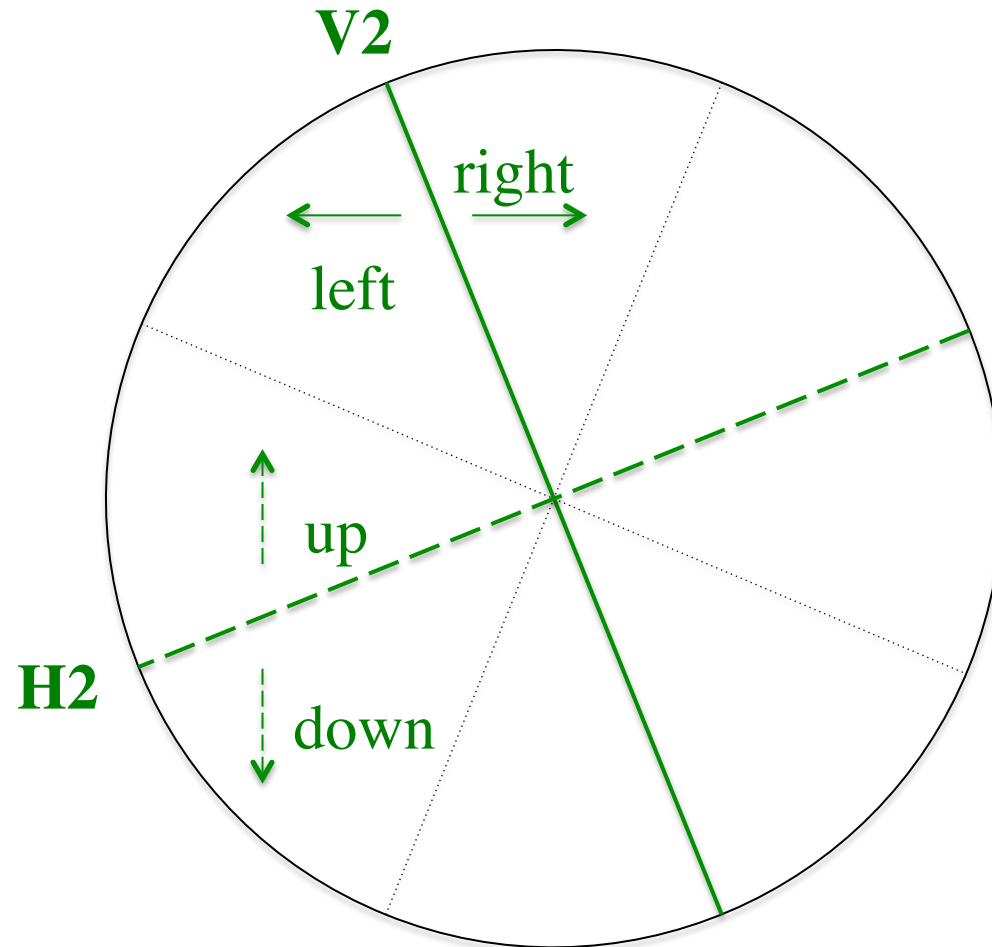
R. Gibbons, M. LiCalzi, and M. Warglien

- Can small difference in categorization → big difference in perceived game?
- Categorization that is widely distributed and long-lasting ~ “culture”?
- Resilience (non-invadability) of a categorization?
 - Resilience of categorizations, not strategies
 - Not all categorizations equally plausible
 - Inferior categorizations may be resilient
- Can categorizations be changed (and how might this relate to leadership)?

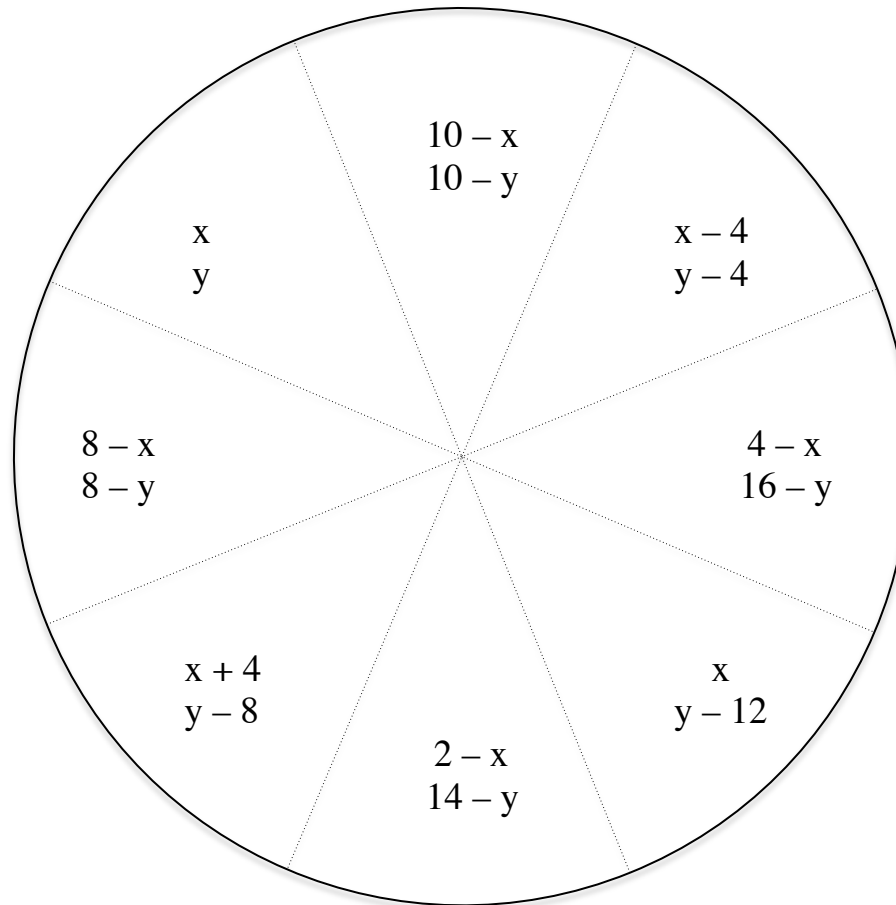
Blue Categorization



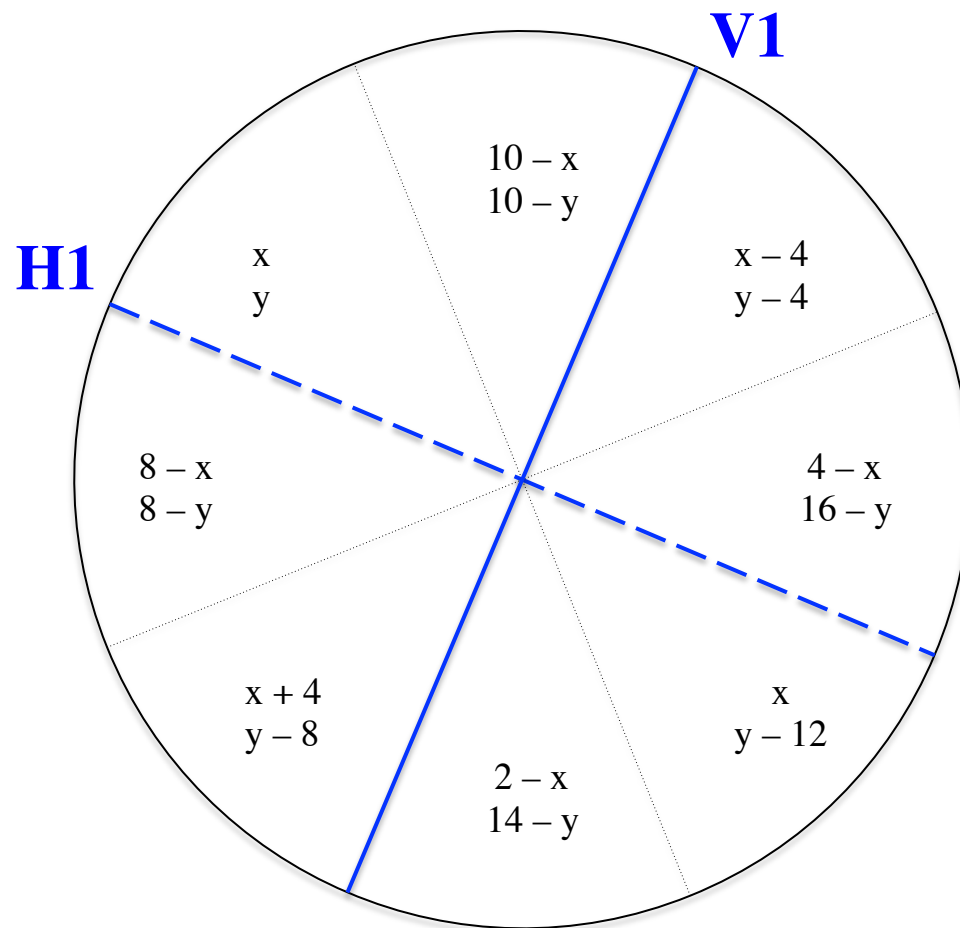
Green Categorization



Payoffs (from Action Pairs)



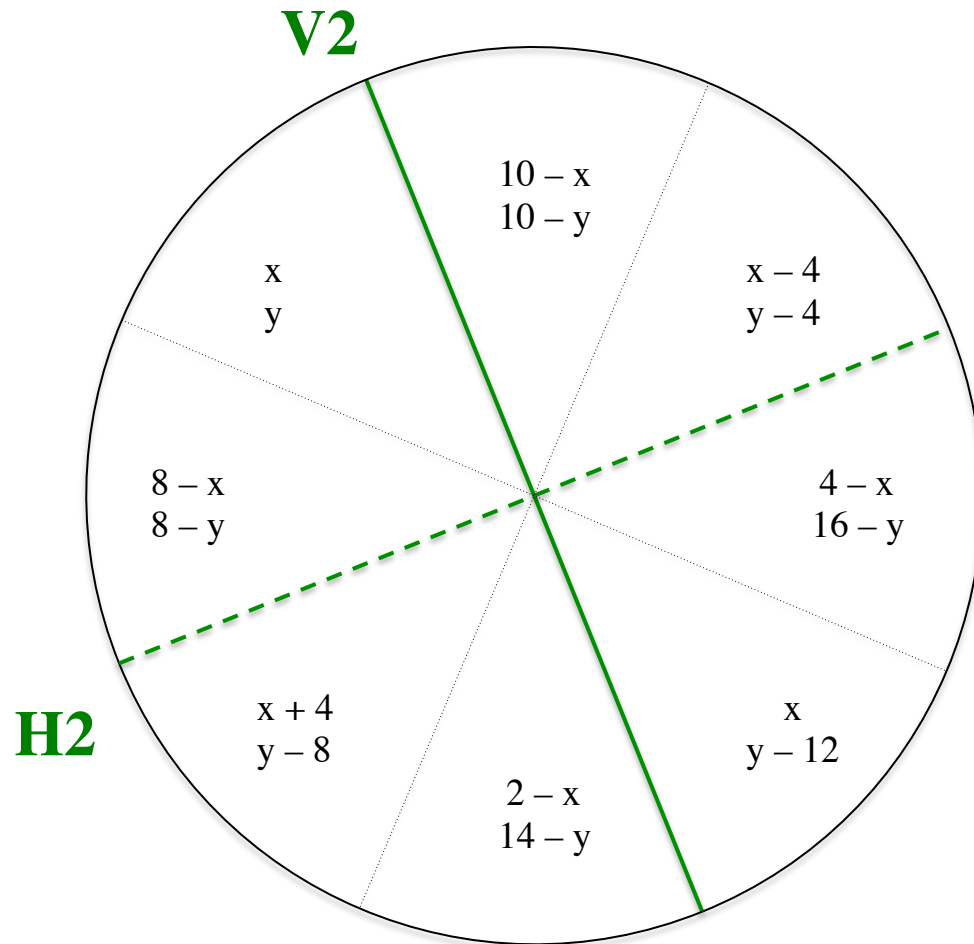
Payoffs from Blue Categorization



H1, V1

| | L | R |
|---|-----|-----|
| U | 5,5 | 0,6 |
| D | 6,0 | 1,1 |

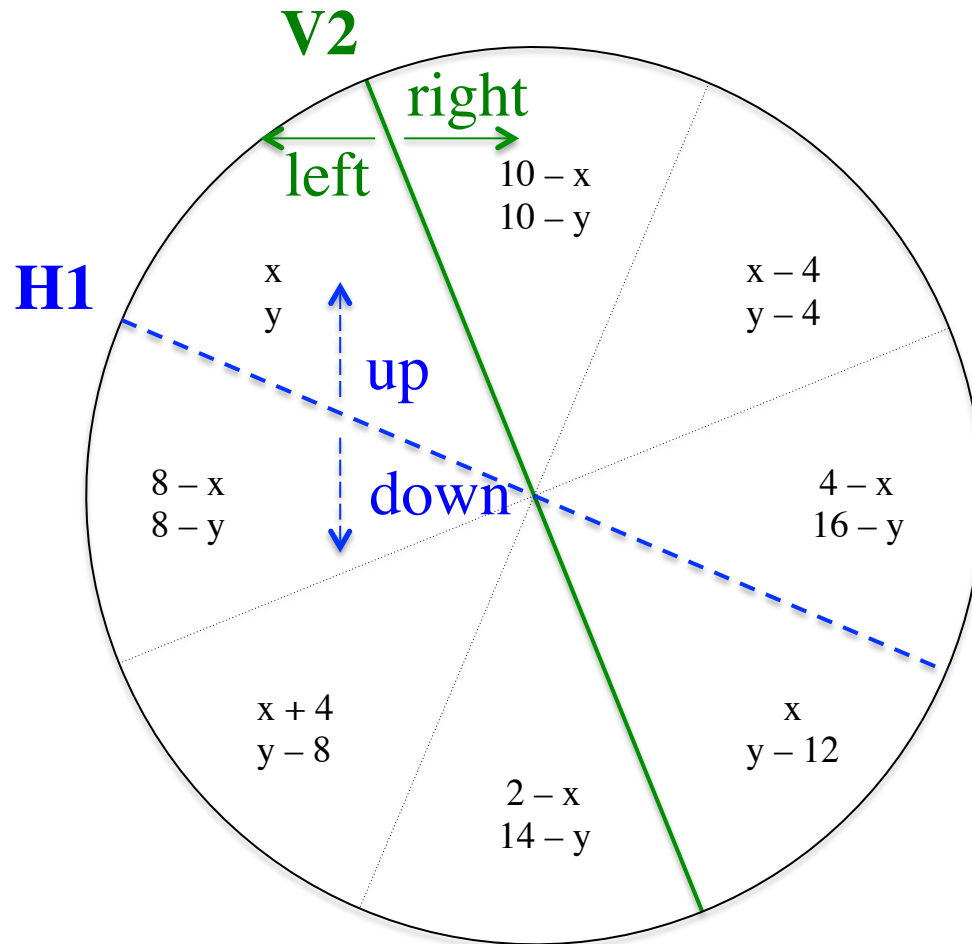
Payoffs from Green Categorization



H2, V2

| | L | R |
|---|-----|-----|
| U | 4,4 | 3,3 |
| D | 3,3 | 2,2 |

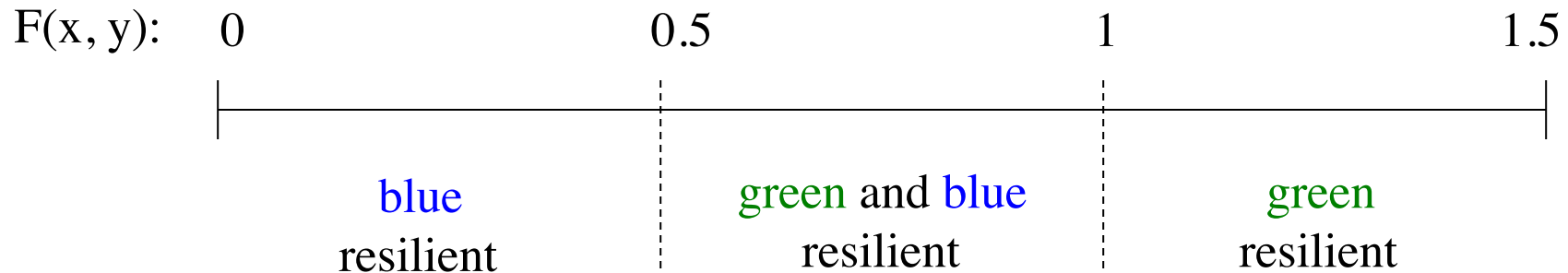
Payoffs from Mixed Worldviews



H1, V2

| | L | R |
|---|----------------------------------|----------------------------------|
| U | x, y | $\frac{10-x}{3}, \frac{22-y}{3}$ |
| D | $\frac{14-x}{3}, \frac{14-y}{3}$ | $x, y - 12$ |

Changing Projections (to Change Culture)



Sustaining change:

Leader of (H, V)
must change both
to green at once
and keep working

North Korea

Leading change:

Leader of (H, V)
must change
both to green at
once

Gerstner

Seeding change:

Leader of (H, V)
can change one
to green and wait
for diffusion

Snowball

C. Experiments

Clarity in Relational Contracts: Rules vs. Principles

R. Gibbons, M. Grieder, H. Herz, C. Zehnder

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