

# The Secret Life of Mundane Transaction Costs

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The University of Connecticut

# The Secret Life.



- ◆ Mundane transaction costs aren't so mundane.
- ◆ The secret life-**cycle** of mundane transaction costs.

# Transaction costs.

- ◆ Frictions.
  - “Costs of running the economic system.”
  - But Williamson actually more interested in the costs of (long-term) contracting.
- ◆ Three “critical dimensions” of transactions:
  - Uncertainty;
  - Frequency;
  - Asset specificity.
- ◆ “The most critical dimension for describing transactions is asset specificity.”
- ◆ Agency, monitoring, incentive alignment.



Oliver Williamson

# Transaction costs.

The notion of a “transaction” includes both exchanges and contracts. An exchange is a transfer of property rights to resources that involves no promises or latent future responsibility. In contrast, a contract promises future performance, typically because one party makes an investment, the profitability of which depends on the other party’s future behavior. The transactions that are the focus of Williamson’s approach are contractual, not just spot exchanges or even a long-lasting series of spot exchanges. In a contract a promise of future performance is exchanged, and investments are made, the value of which becomes dependent on the fulfillment of the other party’s promises.

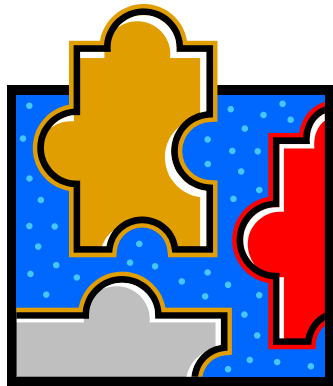
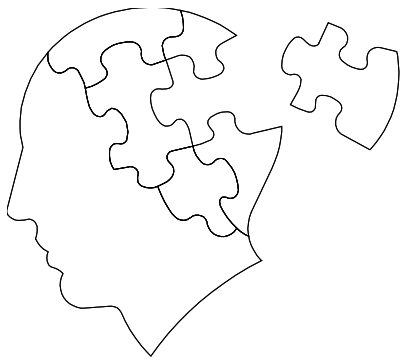
# Transaction costs.



Ronald H. Coase

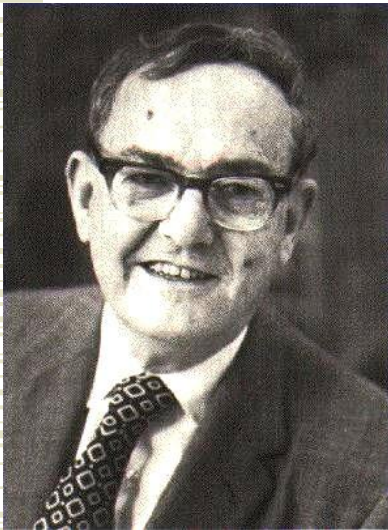
- ◆ Coase seems more interested in costs of exchange.
  - Cost of discovering the relevant prices.
  - Costs of negotiating and concluding a separate agreement for each exchange.
  - Costs of coordinating when tasks are uncertain.
- ◆ Mundane transaction costs?

# Modularity theory of the firm.



- ◆ Comparative institutional analysis à la Demsetz (1969).
  - ◆ Choice among (given) discrete institutional alternatives.
- ◆ Modularity theory of the firm.
  - ◆ Langlois (2002); Baldwin and Clark (2003).
  - ◆ Generalize comparative institutional analysis.
  - ◆ Consider engineering-design (evolutionary-design) problem that generates the alternatives.
  - ◆ the modular structure of a system of production determines the system's pattern of transaction costs.

# Decomposable systems.



Herbert A. Simon  
(1916-2001)

- Encapsulation.
  - Most interaction “topologically close.”
- Information hiding.
  - Reveal as little as possible about inner workings.

# Decomposability.

	$a_1$	$a_2$	$a_3$	$a_4$	$a_5$	$a_6$	$a_7$
$a_1$	X						
$a_2$	X	X	X				
$a_3$		X	X				
$a_4$			X	X	X		
$a_5$				X	X		
$a_6$					X	X	
$a_7$							X

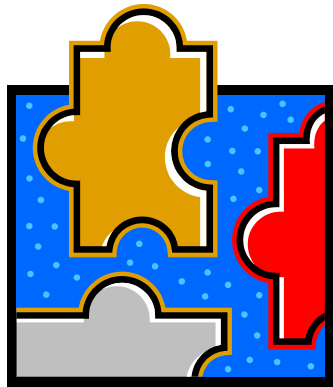
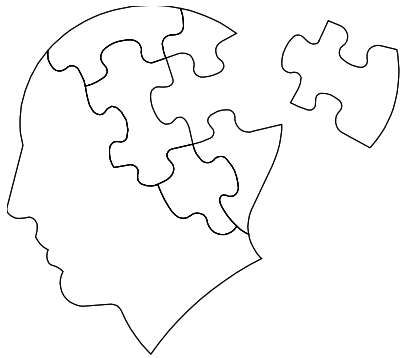
# Decomposable systems.



Herbert A. Simon  
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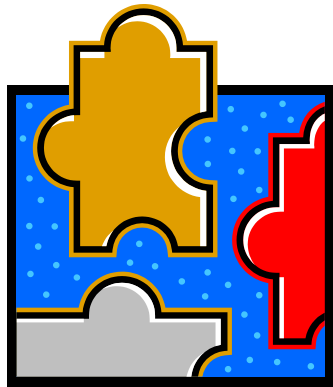
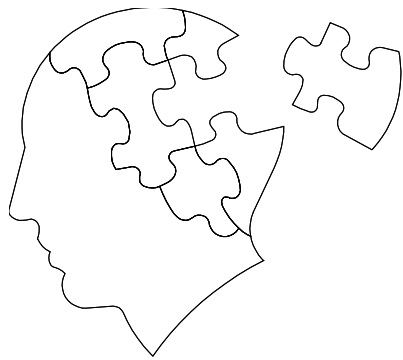
- Encapsulation.
  - Most interaction “topologically close.”
- Information hiding.
  - Reveal as little as possible about inner workings.

# Modular systems.



- Visible design rules.
  - Architecture.
  - Interfaces.
  - Standards.
- Hidden design parameters.

# Role of standards.



- ◆ Standards as institutions.
  - Aid in coordination.
  - Reduce transaction costs.
- ◆ “External” economies of scope.
  - Public interfaces.
  - “Reuse” of knowledge.

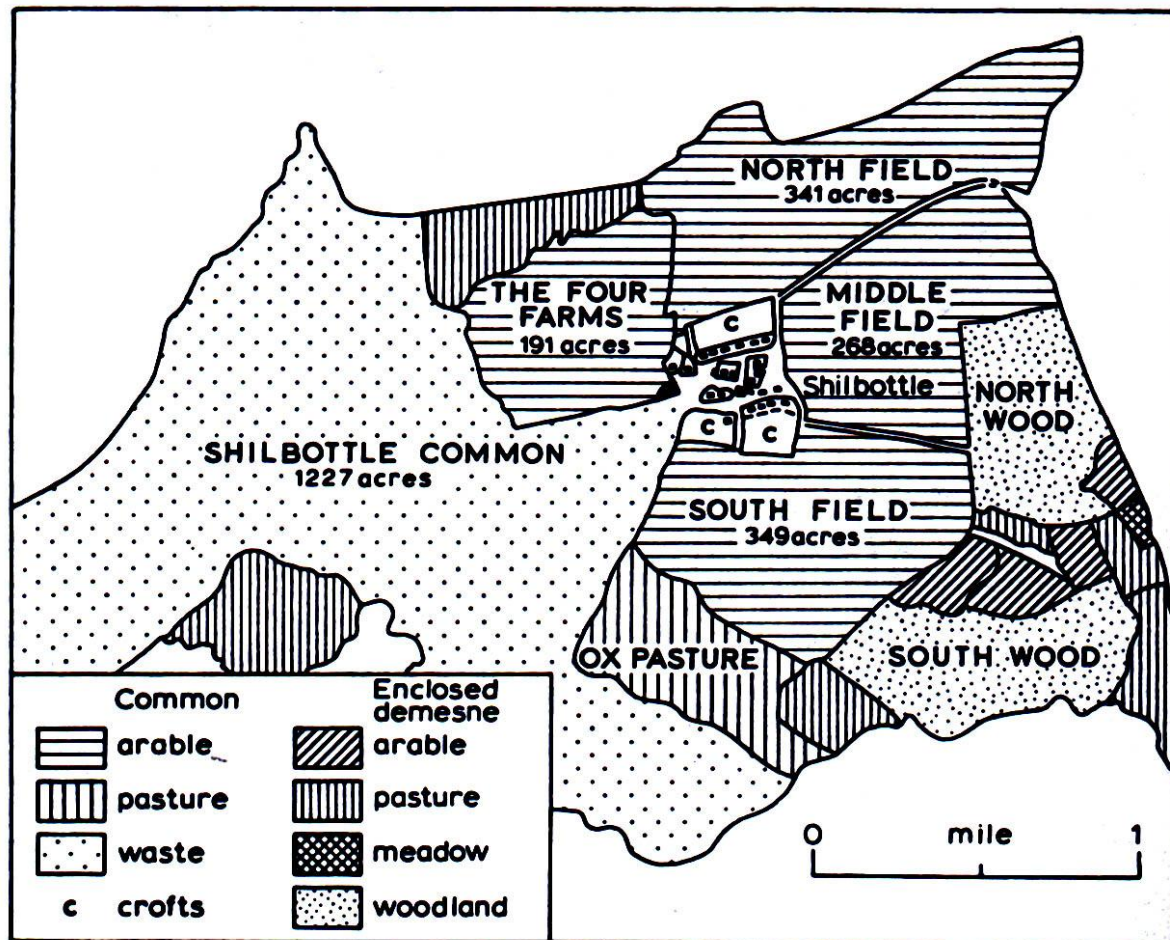
# Property rights and modularity.

- Rights as encapsulation boundaries.
  - Division-of-knowledge benefits.
  - Incentive benefits.
- Externalities as non-encapsulated effects.
- Emergence and re-partition of rights.
  - Commons and anticommons.



July, from  
*Les très  
Riches  
Heures du  
Duc de  
Berry* (c.  
1412). The  
Chantilly  
Museum,  
Paris.

# Property rights and modularity.

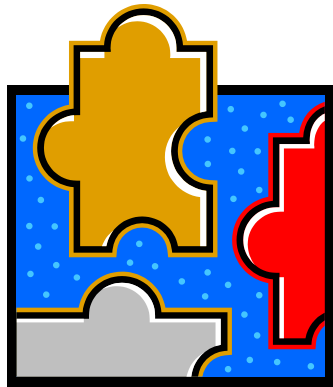
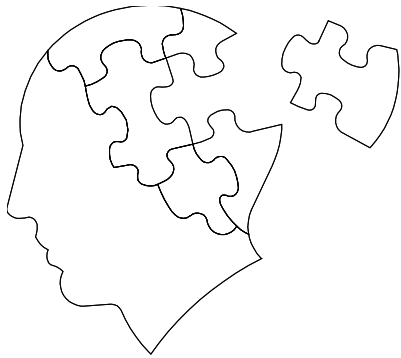


# Modularity theory of the firm.



- ◆ Baldwin and Clark:
  - Production as a network of tasks.
  - Transfers of material, energy and information among agents.
  - Not all transfers are transactions.
    - Must be defined, counted, valued, and paid for.

# Modularity theory of the firm.



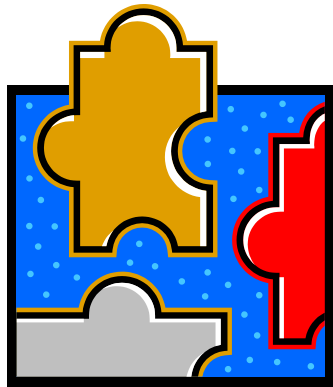
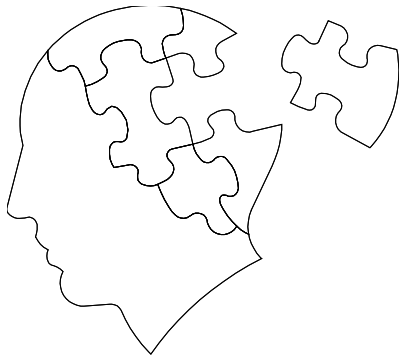
- ◆ Firms are a form of encapsulated local system.
- ◆ “Internalizing externalities” is equivalent to “encapsulating blocks of transfers.”

# Modularity theory of the firm.



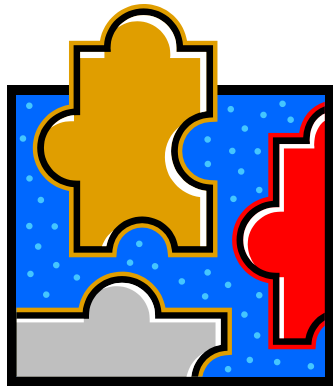
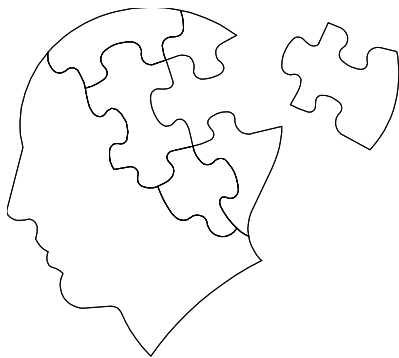
- ◆ B&C: mundane transaction costs are the “costs of creating a transactional interface.”
  - Costs of defining what is to be transferred.
  - Costs of counting the transfers.
  - Costs of valuing and paying for the individual transfers.

# Modularity theory of the firm.



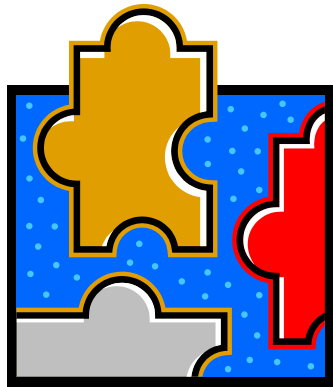
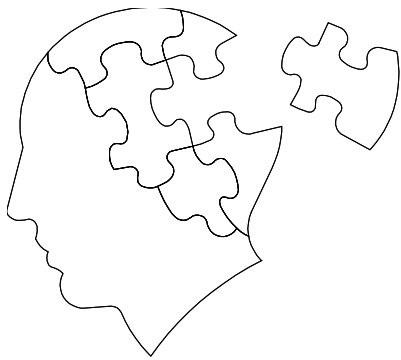
- ◆ Costs of **creating** a modularization.
- ◆ Costs of **running** a modularization.

# Costs of **creating** a modularization.



- ◆ Institutional set-up costs.
- ◆ Costs of defining what is to be transferred.
  - ◆ Increase with novelty, systemic change.
    - ◆ Ambiguous versus specific description.
    - ◆ Relationship to tacit or codified knowledge?

# Costs of **running** a modularization.



- ◆ Transfers can be well specified, but residual (parametric) uncertainty.
  - ◆ Repertoire uncertainty.
    - ◆ The parable of the secretary.
  - ◆ Time specificity.
    - ◆ Trucking example.
- ◆ Frictional and measurement costs.
  - ◆ ATM example.
- ◆ Opportunism and agency costs.

# Transaction costs.



Ronald H.  
Coase (1910-)

- ◆ Neoclassical tradition.
  - The costs resulting from the transfer of property rights.  
(Allen 2000, p. 901.)
  - Dahlman: identical to transportation costs.
  - The iceberg model.

# Transaction costs.



Ronald H.  
Coase (1910-)

- ◆ Property rights tradition.
  - The costs of establishing and maintaining property rights.  
(Allen 2000, p. 898.)
  - Direct costs as well as indirect costs of misallocation from rent-seeking activity.

# Types of transaction costs.

(1)	(2)	(3)
Fixed costs	Costs that are a function of time	Costs that are a function of number of exchanges or volume of trade
<p><b>Examples:</b> Legal, organizational, and technological standards; hostages and bonds; locks, closed-circuit TV.</p>	<p><b>Examples:</b> Salaries of police, supervisors, and other monitors; monthly protection money; maintenance of fixed investments.</p>	<p><b>Examples:</b> Brokerage fees, commissions; insurance premia; queuing at the bank, ATM fees; inspection and regulatory fees; per-transaction bribes.</p>
<i>Costs of property rights.</i>		<i>Neoclassical T-costs.</i>
	<b>Mundane transaction costs</b>	

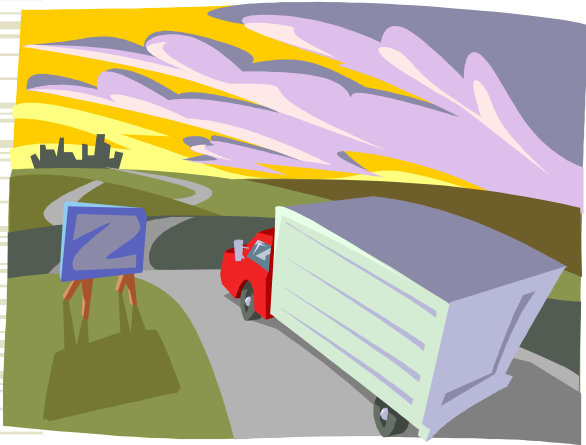
# The parable of the secretary.



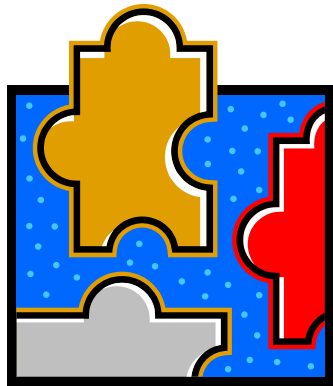
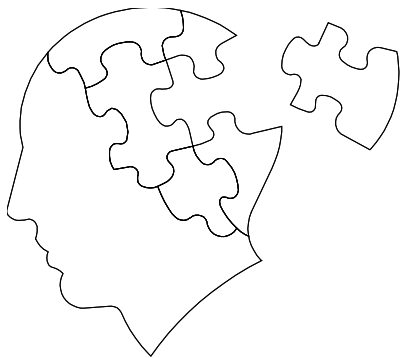
- ◆ Why not pay for office services by the piece?
  - \$1 per letter typed, etc.
- ◆ Manager unlikely to know in advance which services needed.
- ◆ Manager pays for the secretary's time, and decides tasks later.
  - Contract for “job description.”
  - Manager chooses  $x \in \Omega$ .

# Trucking.

- ◆ Transaction structure well defined.
- ◆ But bad fit with standard theory.
  - No non-redeployable assets.
  - Fees have no incentive effects.
- ◆ Lafontaine and Masten (2002).
  - Contracts address problem of assigning heterogeneous drivers to loads and determining fees.
  - Ownership depends on wealth and experience, not truck types.



# Costs of **running** a modularization.



- ◆ Transfers can be well specified, but residual (parametric) uncertainty.
  - ◆ Repertoire uncertainty.
    - ◆ The parable of the secretary.
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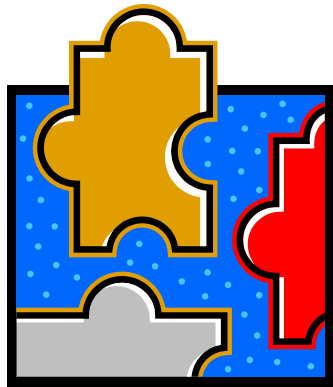
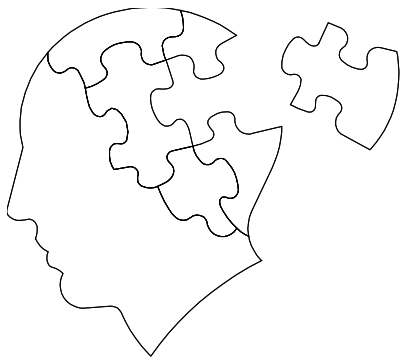
- ◆ Mundane transaction costs aren't so mundane.
- ◆ Coordination costs arising out of structural and parametric uncertainty.
- ◆ More pervasive, fundamental, (and interesting?) than costs of opportunism/agency.

# The Secret Life.



- ◆ The secret life-cycle of mundane transaction costs.
  - Evolutionary or historical versus engineering-design perspective.
  - “Dynamic” transaction costs as the costs of creating a new modularization.
- ◆ Costs of defining transfers decline with learning and repetition.

# Aspects to pursue.



- ◆ Implications for IT technology.
  - ◆ Computers may help reduce frictional, measurement costs.
  - ◆ Computers can deal with parametric variation.
  - ◆ But do humans have a “cognitive comparative advantage” in ambiguity?
- ◆ Implications for debate over tacitness and codification?