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# Playlist

“Conflict of Interest”, Binky Mack

“Disagree”, Chantal Kreviazuk

“Hide and Seek”, Ani di Franco

“Did You Get My Message?”, Jason Mraz

“Joint Venture”, Staffan William-Olsson

“Silent Agency”, Silent Agency

# Hidden Action I

**Information professionals need  
to manage many resources to  
succeed.**

**Information professionals need  
to manage many resources to  
succeed. Including people.**

**Agents use your expensive  
resources, but you can't always  
monitor what they do**

**You must learn  
to manage  
*without control.***

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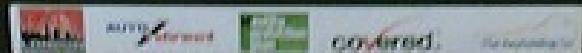
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**You succeed if your independent agents *want* to solve *your* problems.**



**Design agreements that *motivate*  
agents to *self-monitor*.**







You can keep your job for  
another day

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**Perfect contracts with perfect information can solve this problem.**

# Contract

The party of the first part and  
the party of the second part  
hereby agree that:

If  $x_1$  happens, do  $y_1$ , get paid  $z_1$ ;

If  $x_2$  happens, do  $y_2$ , get paid  $z_2$ ;

If  $x_3$  happens, do  $y_3$ , get paid  $z_3$ ...

Elmer Fudd



Elmer Fudd, Esq.

Alfred E. Newman



## Death penalty for parking violations

Ines Macho-Stadler and J. David Perez-Castrillo, *An Introduction to Economics of Information: Incentives and Contracts*, 2nd ed. (Oxford University Press, 2001), pg 281.

**<example>**

eBay

**TRUST US—  
WE'RE  
EXPERTS!**

**JOHN STAUBER  
AND  
SHELDON RAMPTON**



**Do you trust this  
seller?**

[Home](#)[AOL Members](#)[Guidelines](#)[FAQ](#)[SPF Information](#)[AOL Email Servers](#)[Troubleshooting](#)[Tutorial](#)[Legal@AOL](#)[Webmaster@AOL](#)[DNS@AOL](#)You are here: [Home](#) > [List of Errors](#) > 554 HVU:B1

## Error 554 HVU:B1

- 554 HVU:B1  
<http://postmaster.info.aol.com/errors/554hvub1.html>

### EXPLANATION:

There is at least one URL in your email that is generating substantial complaints from AOL members.

### SOLUTION:

If you own all the domains linked to in your e-mail, please [contact us](#) to discuss more effective management of your complaint levels. You can start by setting up a free complaint loop through this form. This will allow you to receive AOL member complaints against your domain.

If you do not own the domain, please have the owner of that domain [contact us](#).

Done

start

Mozilla Firefox

© 2006 AOL

3:29 PM  
Wednesday  
6/7/2006

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THE BACK OF THIS DOCUMENT HAS AN ARTIFICIAL WATERMARK PRINTED IN A SPECIAL WHITE INK.

# OFFICIAL CHECK

HOLD THE DOCUMENT AT A SMALL ANGLE TO SEE THIS SECURITY FEATURE.

## 145879334

\*\*FEBRUARY 3, 2003\*\* 23-7/1020

Pay to the order of **\*\*\*Targeted victim's name deleted\*\*\***

\*\*\*\*\* \$ **9,650.00** \*\*

NATIONAL CITY **9,650.00** Dollars

**National City**  
National City Bank of Michigan/Illinois

Drawer: National City Bank of Michigan/Illinois



AUTHORIZED SIGNATURE

Remitter: \*\*\*\*\*GLOBAL COMM. INC\*\*\*\*\*

Issued by Integrated Payment Systems Inc., Englewood, Colorado  
Norwest Bank, Colorado N.A. Denver Co.

⑈ 230076⑈ ⑆ 102000076⑆ 680145879334⑈

THE VARIABLE TONE BACKGROUND AREA OF THIS DOCUMENT CHANGES COLOR GRADUALLY AND SMOOTHLY FROM DARKER TONES AT BOTH TOP AND BOTTOM TO THE LIGHTEST TONE IN THE MIDDLE.



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**The information requirements  
for perfect contracting are  
prohibitive.**

**bounded rationality**

**memory**

**communication**



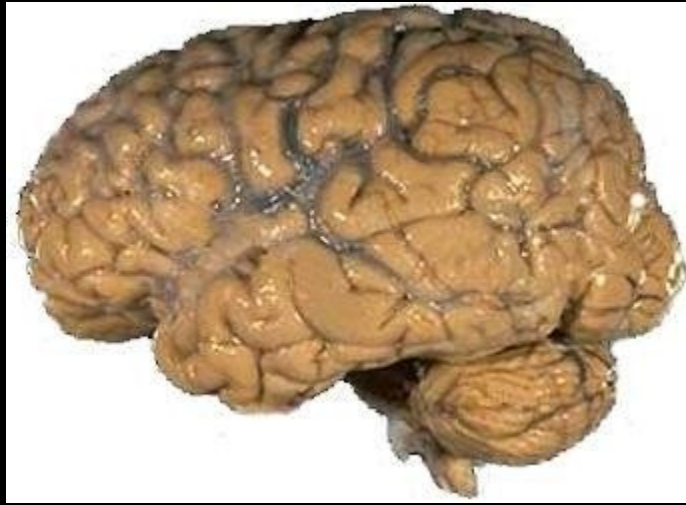
**computation**



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Source: Unknown

**silicon-based**

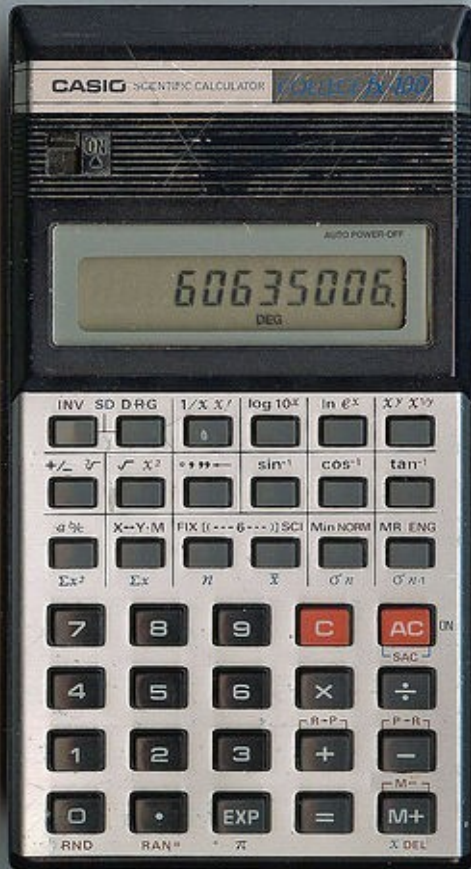
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**What are some solutions?**



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# reputation



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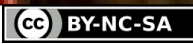
**commitment**



**Xiang Yu**



BY: Dioboss ([flickr](#))



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Photo tour of factory: <http://forums.vwvortex.com/zerothread?id=1837641>



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**contracts**

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**Gabor Varszegi**

*fotex*

**pay 4x the market wage**

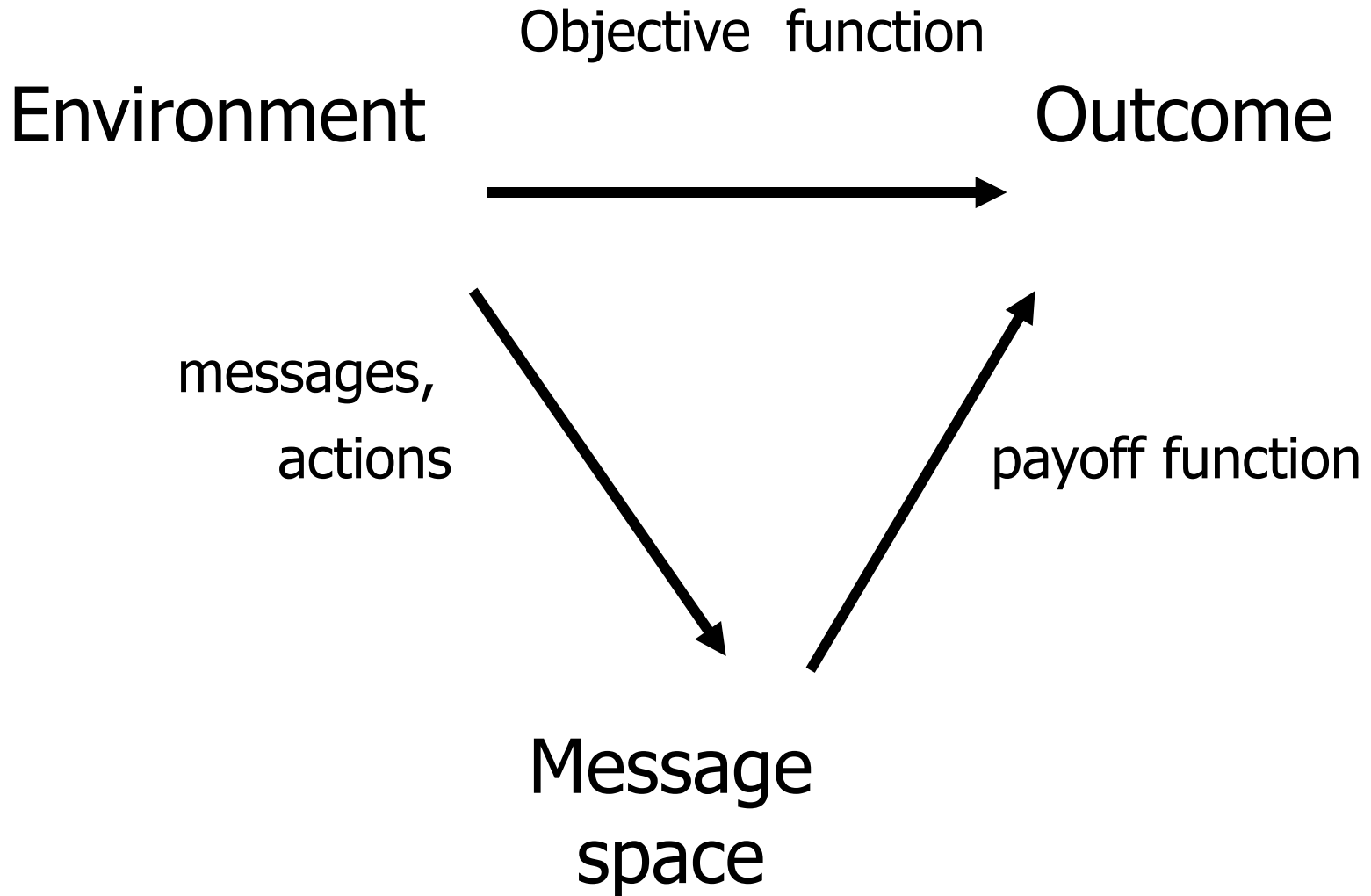
# Canonical contracting problem

*Principal* contracts with *agent* to carry out some type of action or make some decision

- *principal* designs and offers the contract(s)
- *agent* freely chooses whether to accept (IR)
- *agent* performs, but has some information not available to *principal*



# Mount-Reiter diagram



# Canonical contracting problem

*Principal* contracts with *agent* to carry out some type of action or make some decision

NB: Fundamental conflict of interest:  
Cost for one is benefit for other.

NB: Verifiability is critical issue:  
What is enforceable?

# 1. Agency cost

When principals and agents have conflicting objectives, and asymmetric info...

- ...Can't expect the organization or community (etc.) to function as well as it would with full information or aligned objectives

Shortfall: *agency cost*

## 2. Information rent

Principal transfers part of surplus to agent to overcome agency cost: this is the agent's *compensation*.

Compensation =  
reservation utility + *information rent*

**<example>**

# **Dissolving a joint venture**

**How to agree on price for a departing participant?**

**2 agents, self-regarding,  
monotonic preferences:  
prefer  $x_i$  to  $y_i$  iff  $x_i > y_i$**

**Message space:**

**$v_i$ , announced valuation for share.**

**Problem: How to decide payment  
given the  $v_i$ ?**



**What's wrong with the following mechanisms?**

**Departing partner announces her  $v_i$  at departure date.**

**Partner has to buy her out at that price**

**Agree on buyout price at  
contract commencement date.**

**Departee announces  $v_i$  at departure date.**

**Partner chooses to buy at that price, or sell his half to departee at same price.**

# Proof of incentive compatibility

Suppose share is worth  $w$  to both partners (but they don't know the value to the other)

- If you announce  $v > w$ , partner will sell to you for  $v$ , you will lose
- If you announce  $v < w$ , partner will buy from you for  $v$ , you will lose
- Announce  $v = w$ : partner willing to buy from you, get full value

# Pareto optimal

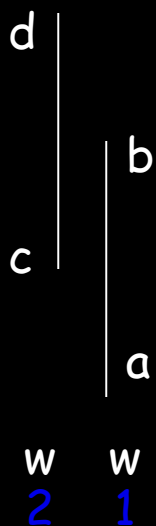
Everyone at least as well off as before, no one worse

No other result is Pareto superior

Cf. Pre-nuptial agreements

# But, not so fast...

What if the partners have different beliefs about the true value?



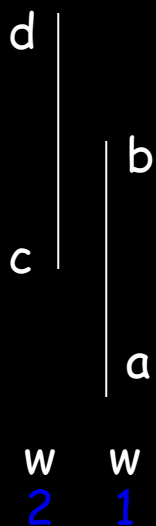
- Suppose  $w_1 \in [a, b]$ , and  $w_2 \in [c, d]$  with  $a < c < b < d$  (overlapping intervals)
- What problem occurs with proposed mechanism?

2

1

# But, not so fast...

What if the partners have different beliefs about the true value?



– Suppose  $w_1 \in [a, b]$ , and  $w_2 \in [c, d]$  with  $a < c < b < d$  (overlapping intervals)

– What problem occurs with proposed mechanism?

- Depending on beliefs about  $w_2$ , seller might want to bid  $v > w_1$ , risking having to buy other share at higher price, but hoping to sell own share at higher price



# Discussion

- In this setting (bilateral trade with overlapping value supports) *no mechanism can guarantee* that its outcome will be:
  - efficient
  - budget balanced
  - individually rational
- For example, for any mechanism there might be cases where  $w_2 > w_1$ , so there is some price at which both parties are better off if one partner sells to the other, but for which trade will not occur: Myerson-Satterthwaite (1981)

**<summary>**

**Humans are crucial devices in  
any system.**

**They are autonomous and  
(generally) at least somewhat  
self-interested.**

**Most tasks that require cooperation or agency (effort on behalf of someone else) have intrinsic conflict of interest.**

# Conflict of interest

**Not swear words.**

**Learn to love them.**



**They create an opportunity for  
smart ICD professionals:  
Problems to solve.**