3.1 — Bargain Theory of Contract

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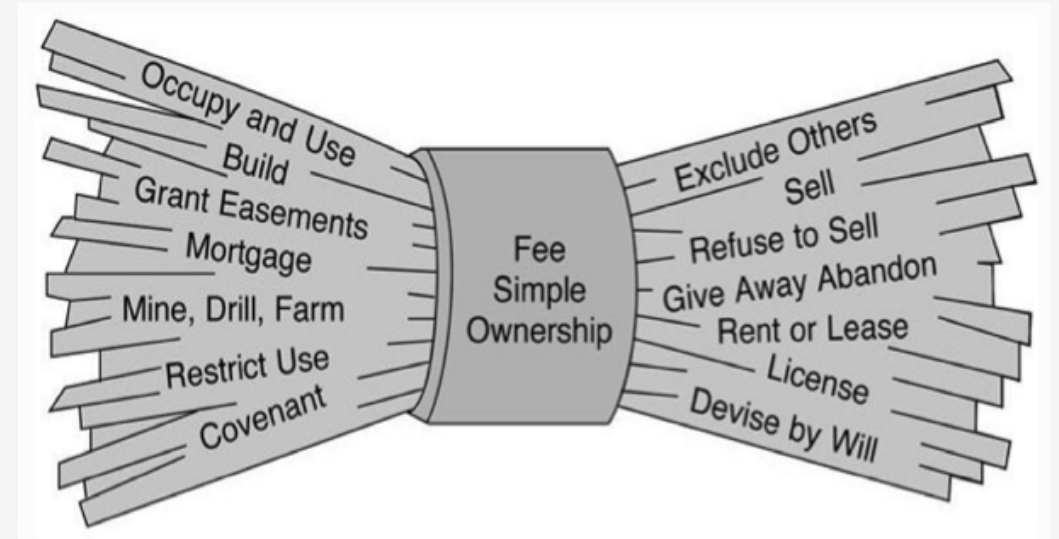
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Summing Up So Far

- Suppose we set up rules, and everyone does what's best for them within the rules

  - What rules do we want to set up, if we want efficient outcomes?

- Some ideas:

  - Coase: initial rules don't matter for efficiency if transaction costs are low
  - More complicated rules can lead to more efficient use of a resource, but at higher cost

Transaction Costs of Bargaining

- When two parties want to reallocate rights

  - I want to buy your car
  - Or you want to "buy" my permission to have a noisy party
  - Or neighbors want to pay a factory to pollute less

- We've assumed they've been able to do so

  - Maybe with some transaction costs

The Timing of Exchange

- But there are many other bargaining costs that make exchanges difficult

- Example: one type of problem is timing

- **"Spot" transactions** happen on the spot

  - I hand you a check and you hand me keys to your car
  - You pay for a restaurant meal
  - Maybe some search & bargaining costs, but no enforcement costs

The Timing of Exchange

- Many transactions are more complex

  - Neighbors pay factory to pollute less going forward
  - What if technology/cost changes, factory wants to pollute more?

- Other examples:

  - Booking a flight
  - Painting a house
  - Fixing a car

- There's now additional **enforcement costs** to ensure parties uphold their side of the bargain
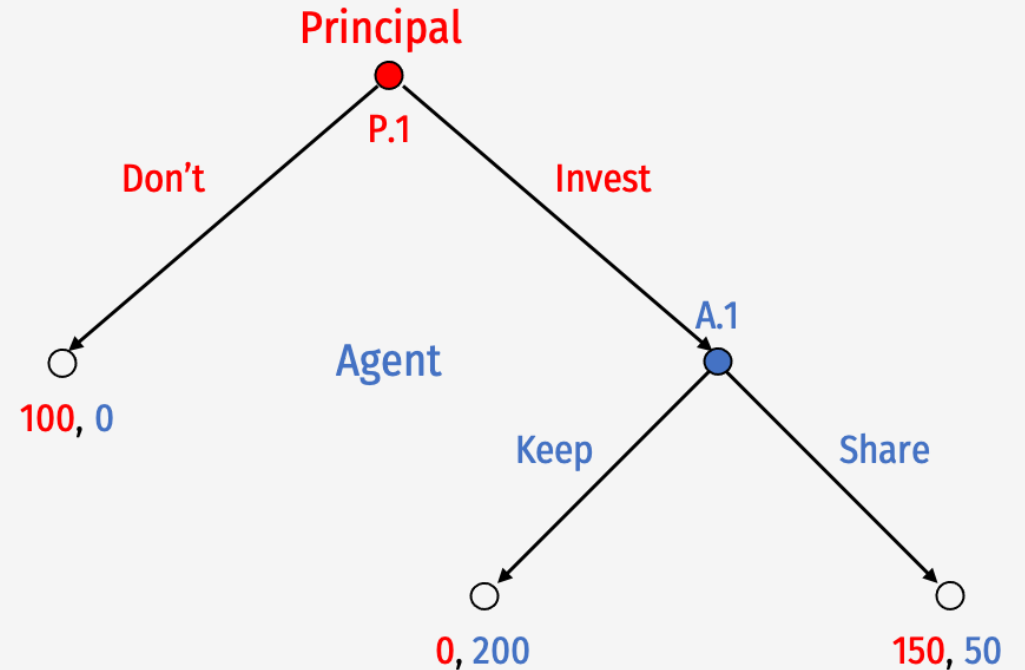
Contracts

- A **contract** is a **promise** that is legally binding

  - Courts will enforce many (but not all) promises

- Point of contracts: enable trades where the transaction is not concluded immediately (non-spot transactions)
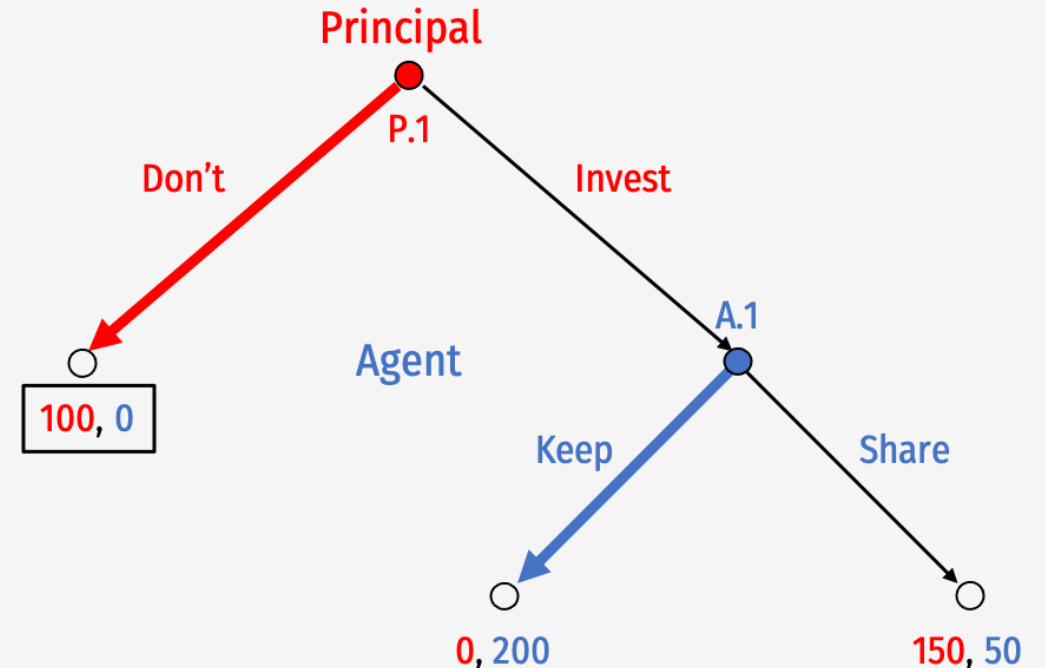
Making Promises Credible

- Simple **agency** or **trust** game

- Principal decides to invest money ($100) with Agent

  - Investment grows to $200

- Agent can then keep or share the returns with Principal

Principal

P.1

Don't   Invest

A.1

Agent
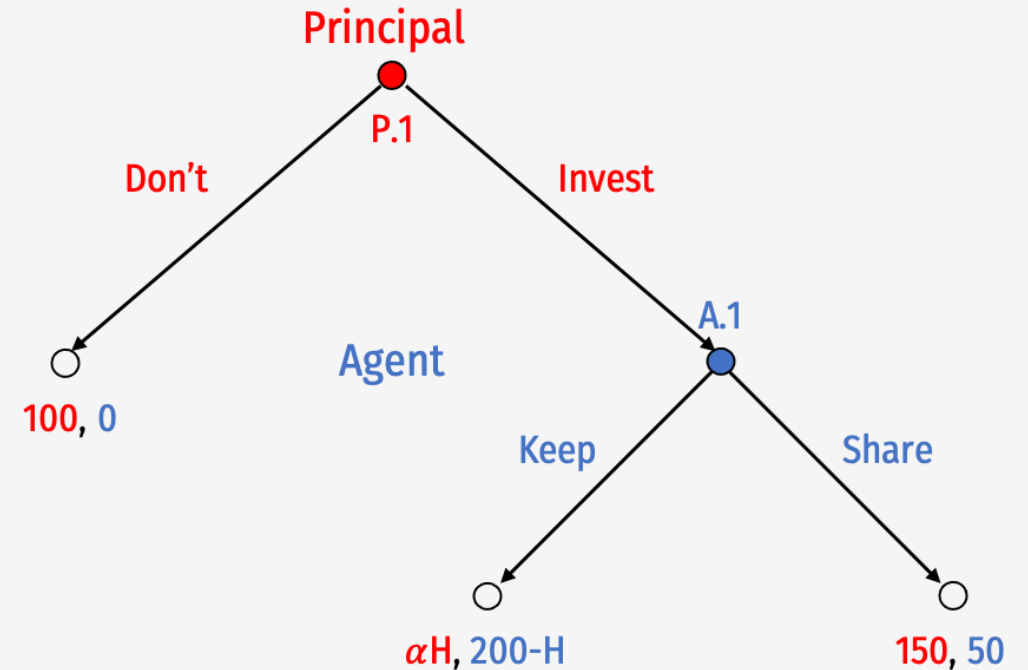
100, 0

Keep   Share

0, 200   150, 50

Making Promises Credible

- Simple **agency** or **trust** game

- Principal decides to invest money ($100) with Agent

  ○ Investment grows to $200

- Agent can then keep or share the returns with Principal

- **SPNE**: (Don't, Keep)

  ○ Inefficient outcome; Pareto improvement possible
  ○ A **promise** to Share is **not credible**

Making Promises Credible

- One solution: **reputation**, which acts like a forfeitable **bond**

- If Agent chooses to Keep, will lose -H, which is "hostage" value

  - Principal will earn αH, where α is the faction of H that is valuable to Principal
  - $\alpha = 0$: hostage has no value to Principal
  - $\alpha = 1$: cash

Principal

P.1

Don't   Invest

Agent   A.1

100, 0

Keep   Share

αH, 200-H   150, 50

Making Promises Credible

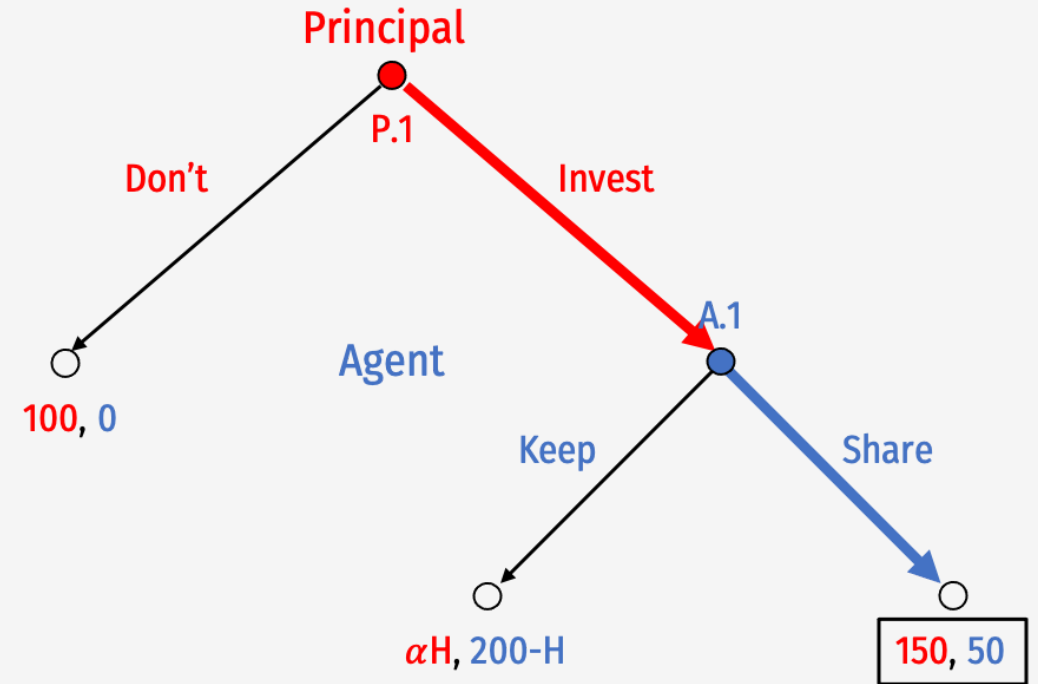- One solution: **reputation**, which acts like a forfeitable **bond**

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- If $H > 150$, **SPNE**: (Invest, Share)

In The Old Days, These Were *Actual* Hostages

Williamson, Oliver E, 1983, "Credible Commitments: Using Hostages to Support Exchange," *American Economic Review* 73(4): 519–540

Today We Often Hold Property Hostage as Collateral
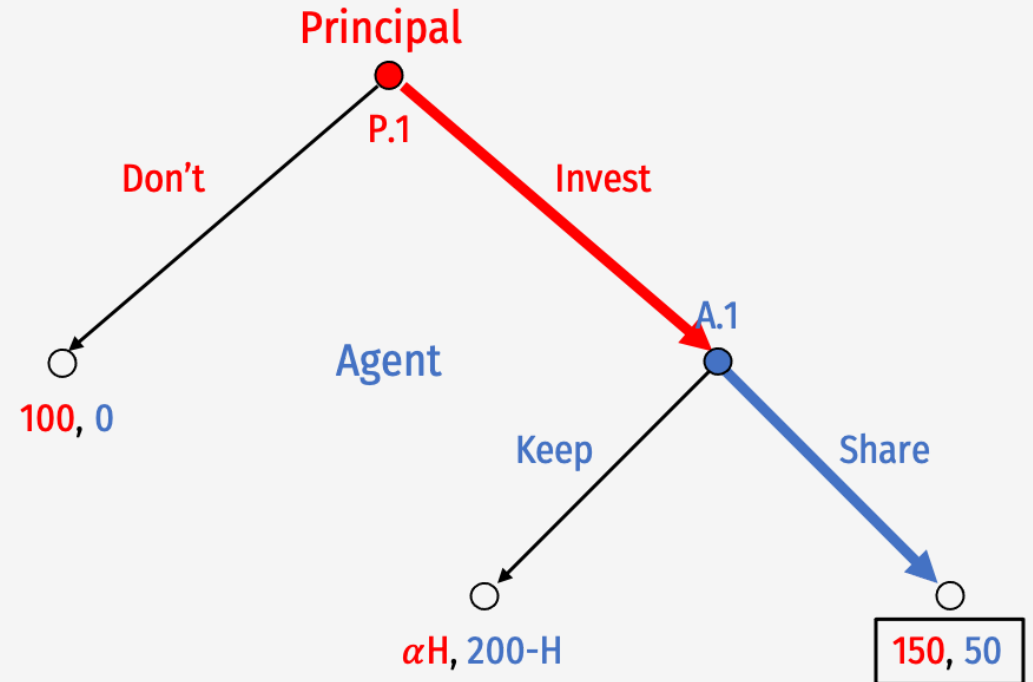

Williamson, Oliver E, 1983, "Credible Commitments: Using Hostages to Support Exchange," *American Economic Review* 73(4): 519–540

Making Promises Credible

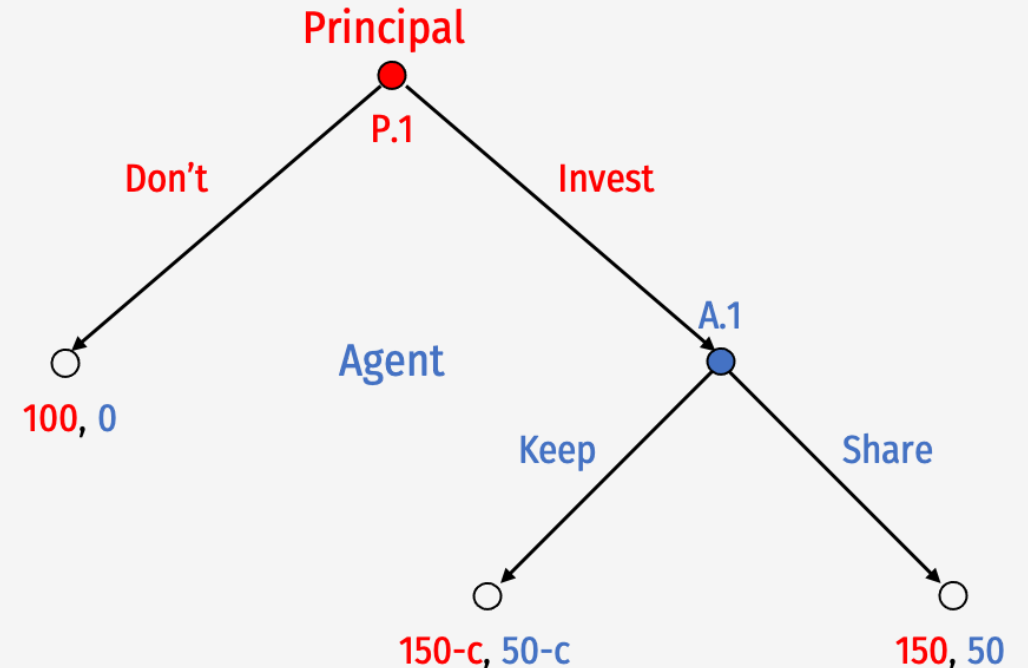- However, reputation has limits

- Works best with **repeated interactions** where Agent cares about prospect of (lost) future business

  - Large enough \(H\)

- What about **one-shot interactions** like this?

Making Promises Credible

- Suppose instead we have courts enforce a promise to Keep
  - Court will force Agent to give $150 to Principal
  - Litigation cost of using courts (c) to each party

Making Promises Credible

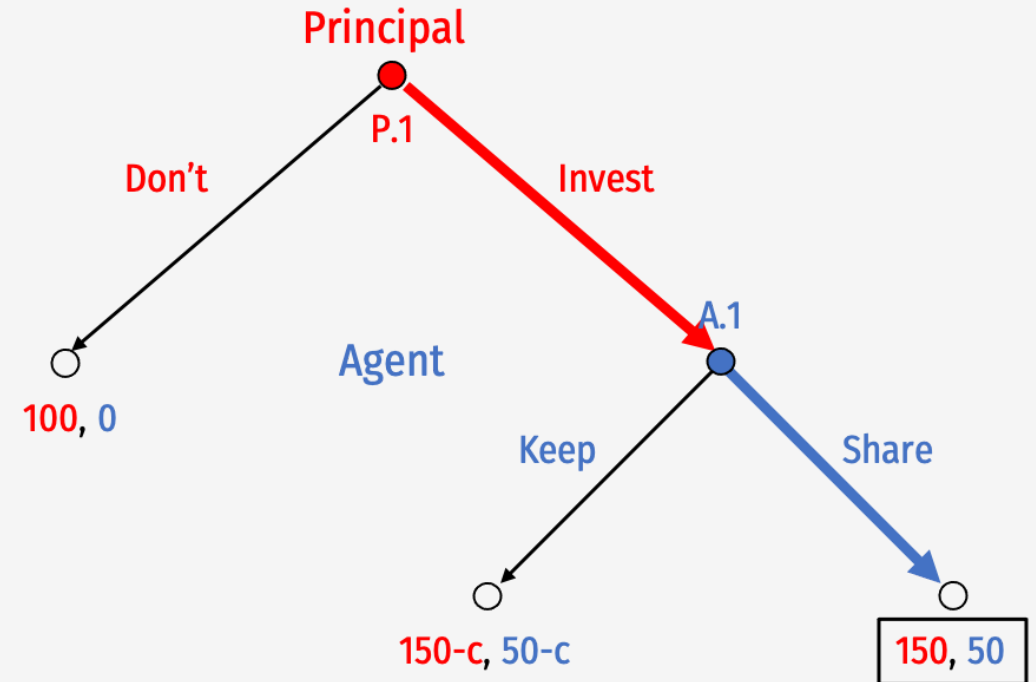- Suppose instead we have courts enforce a promise to Keep

    - Court will force Agent to give $150 to Principal
    - Litigation cost of using courts c to each party

- With $c>0$, **SPNE**: (Invest, Share)

    - Purpose of contract law is to **make promises credible**

Motivations of Contract Law

1. **What kinds of promises should be enforceable at law?**

2. What should the remedies be for a broken promise?

What Promises Should be Enforceable?

"The rich uncle of a struggling college student learns at the graduation party that his nephew graduated with honors. Swept away by good feeling, the uncle promises the nephew a trip around the world. Later the uncle reneges on his promise. The student sues his uncle, asking the court to compel the uncle to pay for a trip around the world."

"One neighbor offers to sell a used car to another for $1000. The buyer gives the money to the seller, and the seller gives the car keys to the buyer. To her great surprise, the buyer discovers that the keys fit the rusting Chevrolet in the back yard, not the shiny Cadillac in the driveway. The seller is equally surprised to learn that the buyer expected the Cadillac. The buyer asks the court to order the seller to turn over the Cadillac."

"A farmer, in response to a magazine ad for "a sure means to kill grasshoppers," mails $25 and receives in the mail two wooden blocks with the instructions, "Place grasshopper on Block A and smash with Block B." The buyer asks the court to require the seller to return the $25 and pay $500 in punitive damages."

The Bargain Theory of Contracts

The Bargain Theory of Contracts

- Legal theory developed in late 19th-early 20th Century

- **A promise should be enforced if it was given as part of a bargain, otherwise, it should not**

- Ideal bargain taken to have three classic elements:

  1. **offer**
  2. **acceptance**
  3. **consideration**

The Bargain Theory of Contracts: Terms

- **Promisor**: person who gives a promise

- **Promisee**: person who receives a promise

- In a bargain, both sides must give up something: **reciprocal inducement**

- **Consideration**: what promisee gives to promisor, in exchange for promise

  - Under bargain theory, this is what makes contract enforceable

What Promises Should be Enforceable?

"The rich uncle of a struggling college student learns at the graduation party that his nephew graduated with honors. Swept away by good feeling, the uncle promises the nephew a trip around the world. Later the uncle reneges on his promise. The student sues his uncle, asking the court to compel the uncle to pay for a trip around the world."

- **No consideration** given as inducement for promise (it's a gift), therefore, **not enforceable**

What Promises Should be Enforceable?

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- Despite consideration, **offer and acceptance not met**, so **not enforceable**
  - No **"meeting of the minds"**
  - Seller (thought they) offered one thing
  - Buyer (thought they) accepted another

What Promises Should be Enforceable?

> "A farmer, in response to a magazine ad for "a sure means to kill grasshoppers," mails $25 and receives in the mail two wooden blocks with the instructions, "Place grasshopper on Block A and smash with Block B." The buyer asks the court to require the seller to return the $25 and pay $500 in punitive damages."

- Under bargain theory, a valid promise, hence, **enforceable**

No Distinctions Between Fair & Unfair Bargains

- Bargain theory of contract does *not* distinguish between fair and unfair bargains

- Even a highly one-sided bargain is enforceable under the theory

  - Courts should not determine whether bargain is "fair," only whether a bargain **occurred**

No Distinctions Between Fair & Unfair Bargains

- Too difficult to have a theory of what is "fair" and have court only enforce fair bargains
    - Court would have to calculate value of contract to each party and make sure they were about equal

No Distinctions Between Fair & Unfair Bargains

- *Hamer v. Sidway* (1891) 124 N.Y. 538, 27 N.E. 256

- Uncle promised his nephew $5,000 to abstain from drinking, smoking, and gambling until his 21st birthday...then refused to pay

  - Some complications, but that's the basic story

- Court: **a bargain occurred**, Uncle owes damages

  - nephew's (promisee) abstention from stimulants counts as consideration in exchange for promise
  - Uncle's (promisor) promise should be enforced
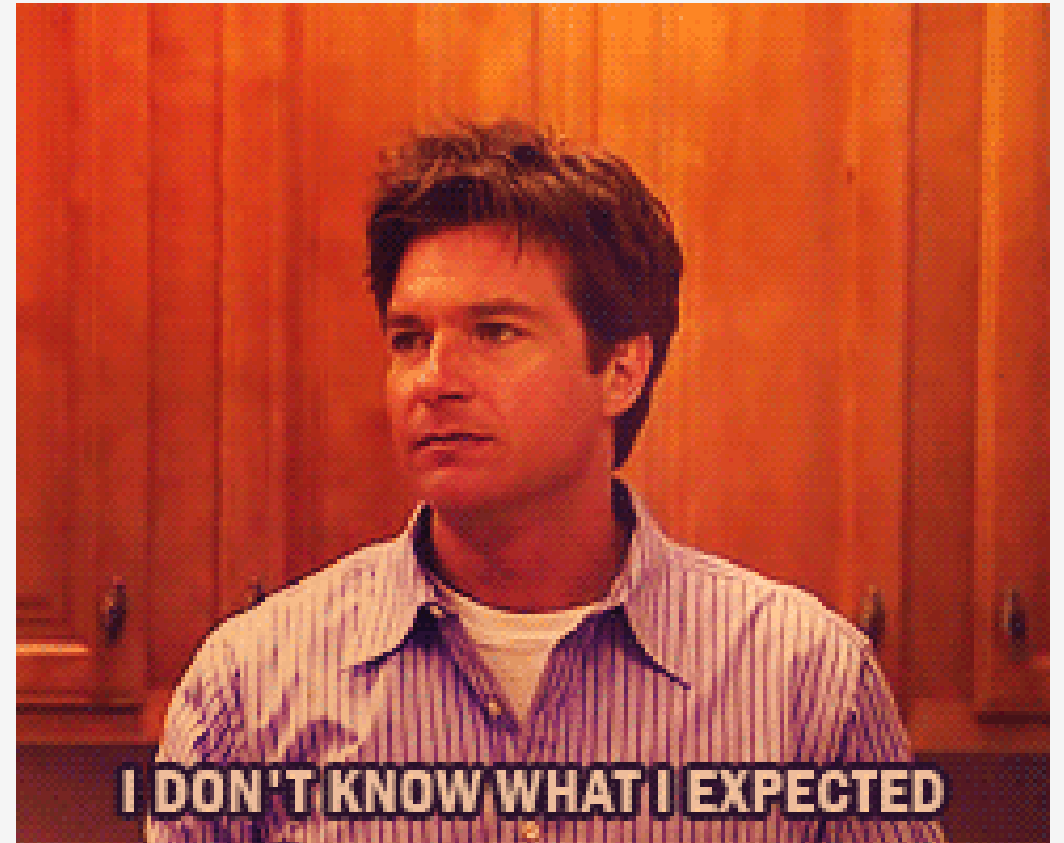
No Distinctions Between Fair & Unfair Bargains

"The promisee [previously] used tobacco, occasionally drank liquor, and he had a legal right to do so. That right he abandoned for a period of years upon the strength of the promise...**We need not speculate on the effort which may have been required to give up the use of these stimulants.** It is sufficient that he restricted his lawful freedom of action within certain prescribed limits upon the faith of his uncle's agreement, and now, having fully performed the conditions imposed, **it is of no moment whether such performance actually proved a benefit to the promisor**, and the court will not inquire into it."

Opinion of the Court

Remedies: According to Bargain Theory

- **Expectation damages**: amount of benefit the promisee could **reasonably expect** from performance of the promise

- Since promisee agreed to bargain, owes it to promisor to make her as well off as she **would have been** if the promise had been **performed**

  - but sometimes difficult to calculate, hence, *reasonable* standard
  - still lots of ambiguity (quality, tradeoffs, etc.)

The Limits of Bargain Theory

- Bargain theory of contract highly influential, but two major problems:

1. Not an accurate description of what courts actually do
   - Courts do sometimes rule some contracts "unconscionable"
2. Not always economically efficient
   - Would not enforce some promises that both parties want to be enforceable
   - Enforces some promises that should not be enforced
   - Often due to lack of consideration

What Promises Should be Enforced, *for Efficiency?*

- Efficient: **enforce a promise if both the promisor and the promisee wanted it to be enforceable when it was made** (*ex ante*)

  - Note: very different from wanting it to actually be enforced (*ex post*)!

- **First purpose of contract law: enable people to cooperate and capture gains from trade**

  - convert games with noncooperative equilibria to games with cooperative equilibria
  - make promises credible
  - minimize deadweight loss from lost trading opportunities

The Problem of Credible Commitment

- The basic problem is **credible commitment**

    - A much general problem in game theory & political economy

- **"Talk is cheap"**

- With perfect information, **promises** or **threats** will not change equilibrium if they are **not credible**

- Strategy must be **subgame perfect**, if game reaches the relevant decision, it must be in your interest to carry out your promise or threat!

The Problem of Credible Commitment

- Threats and promises can be **credible** with **commitment**

- A **commitment** changes the game in a way that *forces* you to carry out your promise or threat, especially when you otherwise would not want to

  - tying your own hands makes you stronger!

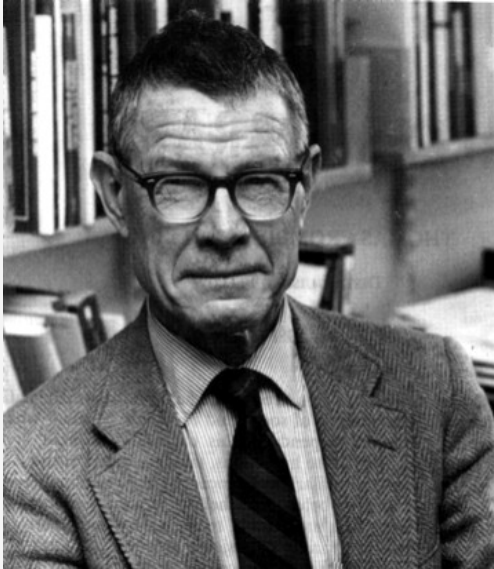# The Problem of Credible Commitment

The Problem of Credible Commitment

- A **commitment device** can *bind* yourself in the future to obey your current wishes for the future

- What doesn't kill you makes you stronger

Credible Commitment and Bargaining

Thomas Schelling

1921—2016

Economics Nobel 2005

"'Bargaining power'..s that the advantage goes to the powerful, the strong, or the skillful. It does, of course, if those qualities are defined to mean only that negotiations are won by those who win...The sophisticated negotiator may find it difficult to seem as obstinate as a truly obstinate man...**"Bargaining power [is] the power to bind oneself."**, (p.22)

Schelling, Thomas, 1960, *The Strategy of Conflict*

Credible Commitment and Bargaining

Thomas Schelling

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Economics Nobel 2005

"**How can one commit himself in advance to an act that he would in fact prefer not to carry out in the event**, in order that his commitment may deter the other party? ... **In bargaining, the commitment is a device to leave the last clear chance to decide the outcome with the other party**, in a manner that he fully appreciates; it is to relinquish further initative, having rigged the incentives so that the other party must choose in one's favor. If one driver speeds up so that he cannot stop, and the other realizes it, the latter has to yield...This doctrine helps to understand some of those cases in which **bargaining 'strength' inheres in what is weakness by other standards**, (p.22)

Credible Commitment

Odysseus and the Sirens by John William Waterhouse, Scene from Homer's *The Odyssey*

Credible Commitment

Credible Commitment and Bargaining

Sun Tzu

544—496 B.C.

> "When your army has crossed the border [into hostile territory], you should burn your boats and bridges, in order to make it clear to everybody that you have no hankering after home."

Sun Tzu, *The Art of War*

Credible Commitment and Bargaining

- **Contract law** can provide that commitment device

- Threat of legal punishment for breaking promises "ties your hands" and forces you to keep more promises, on the margin

- Easier to enter into a promise you would otherwise want to "wiggle out of" later

Efficient Disclosure of Information

- A related purpose of contract law: **encourage the efficient disclosure of information**

- Recall the problem of private/asymmetric information for bargaining

  - e.g. Lemons problem in used car market (Akerlof 1972)
  - contract law can help: seller can issue a legally binding warranty; or impose on seller a duty to disclose information about car's quality

- Makes more trade possible by providing credible commitments!

Breach of Contract

Breach of Contract

- If a contract is a (legally enforceable) promise...

- ...what should happen when the promise is broken?

- **Examples**:

  - I signed a contract with no intention of upholding it
  - or I signed it in good faith, intending to keep it
  - but circumstances changed, making my performance less desirable, maybe inefficient!

Example

- **Example**: I am an aircraft manufacturer, you and I sign a contract
  - You agree to pay me $350,000
  - I agree to deliver an airplane to you
  - You value the airplane at $500,000
  - I expect it will cost me $250,000 to produce

Example

Lots of things could happen in between:

- Price of materials goes up, raising my costs to $700,000
  - inefficient to build the plane
- Or raises my costs to $400,000
  - efficient to build the plane, but I no longer want to
- Another buyer could arrive and offer me $600,000
- I could break my leg, making it impossible for me to build

Breach of Contract

- A contract is a promise

- **Breach of contract** is when promisor fails to keep a promise

    - To make promise legally binding, must be some consequence to breach

- So what should happen when a contract is breached?

    - If penalty too small: law has no bite
    - If penalty too big: promises might be kept that are inefficient
    - **Can we design law to get breach only when it is efficient to breach?**

When Is Breach of Contract Efficient?

Efficiency implies:

Social benefit of breach $>$ social cost of breach $\implies$ efficient to **breach**

Social benefit of breach $<$ social cost of breach $\implies$ efficient to **perform**

- Social benefit of breach: promisor saves cost of performing

- Social cost of breach: promisee loses benefit from promise

When Is Breach of Contract Efficient?

Efficiency implies:

Promisor's cost to perform $>$ promisee's benefit from performance $\implies$ efficient to
breach

Promisor's cost to perform $<$ promisee's benefit from performance $\implies$ efficient to
perform

- Social benefit of breach: promisor saves cost of performing

- Social cost of breach: promisee loses benefit from promise

What Will *Actually* Happen?

Efficiency implies:

Promisor's cost to perform $>$ promisee's benefit from performance $\implies$ efficient to **breach**

Promisor's cost to perform $<$ promisee's benefit from performance $\implies$ efficient to **perform**

Incentives of promisor (what will actually happen):

Promisor's cost to perform $>$ promisor's liability from breach $\implies$ Promisor will **breach**

Promisor's cost to perform $<$ promisor's liability from breach $\implies$ Promisor will **perform**

Getting Only Efficient Breach

- Can we design the law to only get efficient breach of contract?

Promisor's cost to perform $>$ promisee's benefit from performance $\implies$ **efficient** to breach

Promisor's cost to perform $>$ promisor's liability from breach $\implies$ Promisor **will** breach

- If we set **liability from breach = promisee's benefit from performance**, then promisor will only breach when it is efficient
  - When promisor breaches, should owe penalty **exactly equal to** the benefit promisee expected to recieve
  - This is **expectation damages**!

Getting Only Efficient Breach

- **Example**: if I promise you something that you value at $100, if I break my promise, I owe you $100 worth of expectation damages

- That way:

  - if it costs me more than $100 to perform, I'll break it (efficient)
  - if it costs me less than $100 to perform, I'll keep it (efficient)

Back to the Aircraft Example

- Plane worth $500,000 to you

- We agree to price of $350,000

- My cost of building the plane changes, and I break the contract

- Expectation damages: I owe you $150,000 if I fail to deliver the plane

Back to the Aircraft Example

- Plane worth $500,000 to you

- We agree to price of $350,000

- Whenever my cost is below $500,000:

  - I'm better off keeping my promise
  - It's efficient for me to build the plane

- Whenever my cost is above than $500,000:

  - I'm better off breaking my promise and paying damages
  - It's efficient for me to not build the plane

An Externalities View

- If I breach our contract, I impose a negative externality on you

  - You expected $150,000 payoff if I performed
  - so if I breach, you're $150,000 worse off

- If I have to pay you $150,000 damages if I breach, then **I internalize the externality**

  - Now my action no longer affects your payoff
  - You get the same surplus ($150,00) whether or not I build the plane
  - With externality internalized, I choose efficiently when deciding to perform or breach

Why Breach Penalties Matter

- Instead of expectation damages, what if penalty for breach were different?

- Suppose no penalty

  - If costs rise to $400,000, I will breach
  - but it would be efficient to perform

- Suppose penalty is $1,000,000

  - If costs rise to $700,000, I will perform
  - but it would be efficient to breach