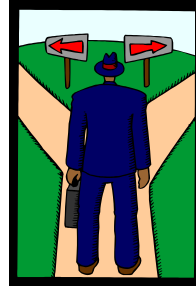




Rights to Produce Externality

Externalities

❖ refer to the spillovers which are the consequences of the action that actors don't take into account and therefore don't influence their decision.



Rules of the Game:

❖ **Now pair up yourselves.**



❖ **One of you is a BarBQer who likes and wants to have barbecue;**



❖ **The other is a neighbor to the BarBQer and thinks barbecue produces too much smoke.**



Payoffs of Barbecue

❖ For people who like barbecue
(BarBQers)

Barbecue → payoffs ↑



❖ For people who don't like
barbecue(neighbors)

Barbecue → payoffs ↓



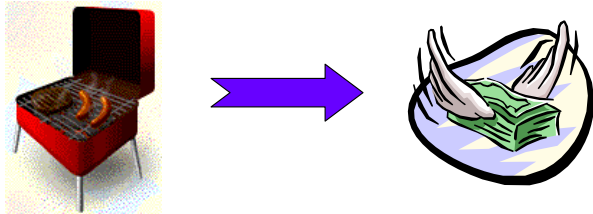
Payoffs of BarBQer and neighbor

Smoke level produced from barbecue	<i>0</i>	<i>1</i>	<i>2</i>	<i>3</i>
BarBQer's total payoffs	\$ 0	\$ 30	\$ 50	\$ 60
Neighbor's total payoffs	\$ 35	\$ 30	\$ 20	\$ 0
BarBQer + Neighbor's payoffs	\$ 35	\$ 60	\$ 70	\$ 60

1. With higher smoke level, BarBQers' payoffs are higher, as they can much enjoy the barbecue.
2. With lower smoke level, neighbor's payoffs are higher, as the disturbance from smoke is less.

A Smoke-Free Country

- ❖ **The neighbors have the right to be compensated for any smoke level over zero.**
- ❖ **If any BarBQer wants to have barbecue, you have to pay to your neighbors as compensation.**



Those pairs on the left hand side of teacher live in a smoke-free country.

A Barbecue Country

- ❖ **The BarBQers have the right to be compensated to accept any smoke level below three.**
- ❖ **If any neighbor doesn't want BarBQer to have barbecue, neighbor has to pay to BarBQer as compensation.**



Those pairs on the right hand side of teacher live in a barbecue country.

Compensation Agreement



- ❖ **Now you have three minutes to decide what smoke level your own pair will have.**
- ❖ **Every pair should try to come to a satisfactory bargain.**
- ❖ **Each pair will receive a Compensation Agreement.**

Compensation Agreement for the Smoke-Free Country



**I, BarBQer (*barBQers' name*),
hereby claim that I will pay
\$(*compensation amount*) to
Neighbor (*neighbors' name*) for
providing the smoke level
of (*smoke level*).**

The pairs in this country should start your negotiation from zero smoke level.

Compensation Agreement for the Barbecue Country



**I, Neighbor (*neighbors' name*),
hereby claim that I will pay
\$ (*compensation amount*) to
BarBQer (*barBQers' name*) for
reducing the smoke level
to (*smoke level*).**

The pairs in this country should start your negotiation from the smoke level of three.

Zero Smoke Level

❖ **How many of you agree on smoke level zero?**



- **Why did you choose to reach this level ?**
- **What did you consider when you had the bargaining?**
- **What was your compensation?**

Smoke Level of One

❖ **How many of you agree on smoke level of one?**



- **Why did you choose to reach this level ?**
- **What did you consider when you had the bargaining?**
- **What was your compensation?**

Smoke Level of Two

❖ **How many of you agree on smoke level of two?**



- **Why did you choose to reach this level ?**
- **What did you consider when you had the bargaining?**
- **What was your compensation?**

Smoke Level of Three

❖ **How many of you agree on smoke level of three?**



- **Why did you choose to reach this level ?**
- **What did you consider when you had the bargaining?**
- **What was your compensation?**

Discussion



❖ What is the assumption behind when we claimed that BarBQer (or neighbor) has the right to be compensated?

Teacher can introduce property rights here.

Property rights



- ❖ **It is socially enforced rights to select the use of an economic good. It can be seen as rules or criteria of competition which must exist to solve conflict.**

Discussion



❖ **What is the best choice of the smoke level to both of BarBQer and neighbor when BarBQer has the right to be compensated?**

2

❖ **What is the best choice of smoke level to both of BarBQer and neighbor when neighbor has the right to be compensated?**

2

1. When BarBQer has the right to be compensated, the best level of smoke should be the level of 2 which gives the highest total payoffs of BarBQer and neighbor.
2. When neighbor has the right to be compensated, the best level of smoke should be the level of 2 which gives the highest total payoffs of BarBQer and neighbor.

Conclusion

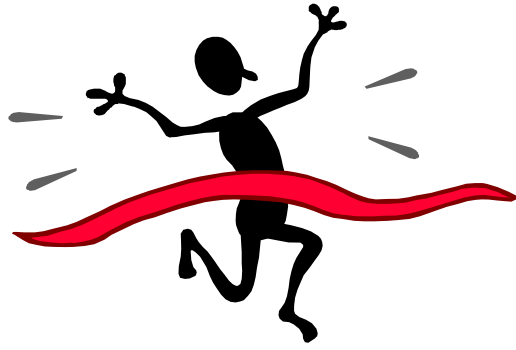


- ❖ **No matter who has the right, the same optimal choice can also be achieved.**

Coase Theorem



- ❖ **It states that if property rights are well-defined or specified and transaction costs are zero, then:**
 - **the allocation of resources will be efficient as there is no problem of externalities,**
 - **the allocation of resources will be identical, regardless of the initial assignment of property rights.**



End