ECON 522 - DISCUSSION NOTES ON TORT LAW-1

I Torts

Tort law deals with situations in which one party harms another, and transaction costs were too high to allow bargaining before the harm was done; e.g. car accidents.

I.1 Remedies: Strict Liability vs. Negligence

The two main types of remedies we will see for torts are strict liability rules and negligence rules:

- Strict liability- The injurer is always liable for damage done.
- No liability- The injurer is never liable for damage done.
- Simple negligence- The injurer is liable for damages if the proper standard of care is not taken. Otherwise the injurer is not liable.

Example. Snow Shoveling and Biking in the Winter. Suppose I own a house and it is my duty to shovel the sidewalk when it snows. The cost to me of shoveling is \$5, but it reduces the risk of a bike accident on the sidewalk from 1/10 to 1/100. A biker can choose to wear a helmet or not wear a helmet. Wearing a helmet costs a biker \$3, but reduces the cost of an bike accident from \$1000 to \$500.

1. What is the efficient level of precaution for me and the biker to take?
2. What levels of precaution will the biker and I choose to take under a rule of no liability? Strict liability? Simple negligence?

I.1.1 Activity Levels

In the previous example, we not only have to worry about whether or not the biker wears a helmet, but also whether or not he chooses to bike at all. You can think of activity levels as a form of precaution. Under a no liability rule, the biker internalizes the full cost of biking, thus he bikes the efficient amount. However, under a strict liability rule, the biker does not internalize the full cost of biking (he imposes a negative externality on me), and thus he bikes too much. This is exactly the same reason for why he chooses to wear a helmet under a no liability rule, but to wear a helmet under strict liability

Example. Solutions.

1. What is the efficient level of precaution for me and the biker to take? The following table shows the expected social payoff given each combination of precaution. The efficient level of precaution is whatever maximizes social welfare, which in this example is that I shovel and the biker wears a helmet.

	Shovel	Don't Shovel
Helmet	-5-3-(1/100)(500)=**-$13**	-3-(1/10)(500)=-$53
No Helmet	-5-(1/100)(1000)=-$15	-(1/10)(1000)=-$100

2. What levels of precaution will the biker and I choose to take under a rule of no liability? Strict liability? Simple negligence?

   - No liability will result in (Helmet, Don't Shovel). The underlined payoffs represent best responses, the Nash equilibrium is when both actions are best reponses:

	Shovel	Don't Shovel
Helmet	-<u>8</u>, -5	-<u>53</u>, <u>0</u>
No Helmet	-10, -5	-100, <u>0</u>

   - Strict liability will result in (No Helmet, Shovel):

	Shovel	Don't Shovel
Helmet	-3, -<u>10</u>	-3, -50
No Helmet	<u>0</u>, -<u>15</u>	<u>0</u>, -100

   - Simple negligence will result in (Helmet, Shovel):

	Shovel	Don't Shovel
Helmet	-<u>8</u>, -<u>5</u>	-3, -50
No Helmet	-10, -<u>5</u>	<u>0</u>, -100

Under no liability, it is a dominant strategy for me not to shovel, since it provides me with no benefit, and for the biker to wear a helmet. Under strict liability, it is a dominant strategy for the biker to not wear a helmet and for me to shovel. Simple negligence mixes the incentives of these two rules so that it becomes a dominant strategy for me to shovel, and given that it is a best response for the biker to wear a helmet. In general this is how any negligence rules works: negligence rules mix incentives from the strict liability and no liability rules in order to create efficient incentives.