ECON 522 - CONTRACT LAW PART 2

(Reliance, Calculating Expectations)

I Reliance

Reliance is the investments made by the promisee to improve the value of the contract (e.g. a hangar for a plane, or furniture for a new house). The main point in our analysis of reliance is that it's very difficult to design an enforcement mechanism that provides incentive for both efficient reliance and efficient breach. Once again the problem is externalities, which we'll discuss below.

If the promisee has relied at all, then clearly the expected benefit of the contract increases for the promisee (recall the airplane and hangar example: if I don't get my plane, then the hangar isn't worth anything to me, but my plane is worth a lot more to me if I have a hangar to put it in). However, if we include reliance in expectation damages, then people will *over*-rely.

The reasoning is as follows: if I know that any dollar that I invest in reliance is going to give me my expected return with probability one (with certainty), then I will invest as if the probability of breach is zero. However, if the probability of breach is not zero (there's some probability that the contract will be broken by the promisor), then the promisor is forced to pay me for my investment, at no cost to me. Thus every dollar that I decide to invest in reliance imposes a negative externality on the promisor. Since I don't have to pay at all for that negative externality, I will over-rely.

Solution: Don't include reliance in expectation damages. If reliance is not included in expectation damages, then every dollar that I invest in reliance only gives a return if the contract is not breached. Thus I pay the total cost of any investment in reliance; I internalize the externality, so that I rely the efficient amount. However, excluding reliance from expectation damages means the promisor does not fully internalize the cost of breach, and thus breaches too often. Cooter and Ulen say that we should use *perfect expectation damages*–damages based on the efficient amount of reliance–to fix this problem, but in reality the efficient amount of reliance is usually impossible to determine. Actual courts instead award damages based on *foreseeable reliance*, only including damages that the promisor reasonably could have foreseen.

Example. I sign a contract with Monona Terrace to hold a conference there next August. After signing the contract I decide to start planning the event, and I must choose how much to invest in advertising for the conference. I can spend \$500 worth of my time sending emails to other economists, most of which will go unread, or I can spend \$5000 printing posters to send to other economics departments, where they will be posted on the walls, forcing prospective attendees to look at them on the way to their offices. If the conference ends up happening, I expect the benefit to me of emails to be \$1500, while the benefit of posters is expected to be \$7000 (this is not net of cost). Suppose there is some probability p that Monona Terrace will realize they double booked the conference hall and breach the contract.

1. Given the probability of breach $p = 30\%$, how is it efficient for me to advertise? Suppose transaction costs are high. What will I choose to do if expectation damages include reliance? What will I choose to do if expectation damages do not include reliance?

2. Would the answer to (i) change if there were no transaction costs?

3. What would the probability of breach need to be for the other advertising method to be efficient?

Answers

1. The efficient ad is the one with the highest expected positive payoff. The expected payoff is:

   $$(\text{Payoff from ad given contract upheld}) \times (\text{ Probability contract upheld }) + (\text{Payoff from ad given contract breached}) \times (\text{ Probability contract breached })$$

   For posters this is:

   $$(7000 - 5000)(.7) - 5000(.3) = -\$100$$

   Clearly not efficient. For emails this is:

   $$(1500 - 500)(.7) - 500(.3) = \$550$$

   Thus emails are the efficient choice. However, if expectation damages include reliance, then I'm comparing a return of $2000 for posters to a return of $1000 for emails, thus I choose the inefficient posters, since I do not pay the loss if there is a breach of contract, and high transaction costs mean we cannot negotiate to reach the more efficient outcome. If expectation damages do not include reliance, then I'm comparing a payoff of -$100 for posters to $550 for the emails, thus I would choose the efficient newspaper ad.

2. If transaction costs are low then the Coase Theorem applies, just as it did when we were studying property law. This means that we will *always* reach the efficient allocation (as long as the "rules to the game" are clearly defined). When expectation damages do not include reliance then I choose the efficient ad, so there is no need to bargain. However, when expectation damages include reliance then there are gains from trade if Monona Terrace and I negotiate:

   If I buy posters, the social payoff is -$100. If I send emails the social payoff is $550. Thus the **potential gains from trade** are $650. My **threat point** is $2000 = my payoff from posters. Monona Terrace's threat point is $.3(-7000) = -\$2,100$. This is because with a 30% probability they breach the contract and must pay me $7,000 to give me a $2,000 payoff. If we **split the gains**, we should each get $325 above our threat points:

   $$\text{My Payoff } = \$2,325$$

   $$\text{Monona Terr. Payoff } = -\$1,775$$

   The **price** that gets us here solves the following equation:

   $$\text{My Payoff } = \text{My Payoff from emails } + \text{ Price}$$

   Thus:

   $$2,325 = 1,000 + p$$

   $$p = \$1,325$$

   Alternatively (and equivalently), the price would have to solve the following equation:

   $$\text{Monona Terr. Payoff } = \text{ MT Payoff from emails } - \text{ Price}$$

   Thus:

   $$-\$1,775 = .3(-1500) - p$$

   $$p = -450 + 1,775 = \$1,325$$

3. It would have to be that

$$\begin{aligned} 2000(1-p) - 5000p &> 1000(1-p) - 500p \\ 2000(1-p) - 1000(1-p) &> 5000p - 500p \\ 1000(1-p) &> 4500p \\ 1000 - 1000p &> 4500p \\ 1000 &> 5500p \\ p &< \frac{10}{55} \approx 18\% \end{aligned}$$

II Calculating Expectations

Let's review how to calculate an expected value. Consider the following setting.

- Outcomes $s_1, \ldots, s_N$
- Probability of each outcome s_i, $p(s_i)$
- Utility u_i from each outcome s_i

Suppose I want to know what my expected utility is. Then for each outcome, I would multiply my utility from that outcome by the probability of landing in that outcome, and then sum over all possible outcomes:

$$E(u) = \sum_{i=1}^{N} p(s_i)u_i$$

For instance, in the previous example, suppose I want to know what my expected utility from buying the WSJ ad is when reliance is not included in expectation damages. Let s_1 be "breach" and s_2 be "no breach". Then $p(s_1) = p$ and $p_(s_2) = 1 - p$, and $u_1 = -500$ and $u_2 = 1000$. That gives us $E(u) = 1000(1-p) - 500p$.