Legal Errors and Efficiency of Liability Rules

Ram Singh

Lecture 14

September 7, 2015

Determination of Due Care

Three options available to courts or juries to fix the legal (due care) standard for the injurer, i.e., x^*:

- Court can determine, the legal (due care) standard for the injurer, on a case-by-cases. However, this option
  - puts huge information burden on courts,
  - So, they end up using reasonable care standard
- Court can use the due care standard provided by the public or regulatory law as the legal (due care) standard.
  - traffic rule, environmental standards, etc.
- Court can use use the care standards practiced by the community of injurers as the legal standards of care
  - doctors, auditors, lawyers, etc.

Due Care and Legal Errors

Courts can make errors in assessment of Due Care.

The Legal Error:

- can be totally random without bias. That is on an average
  - the Due care level is fixed at x^*
- systematically biased. For example,
  - Either the expected Due care level can be fixed at level greater than x^*
  - Or the expected Due care level can be fixed at level less than x^*

As a result, the parities at accident dispute face uncertainty regarding their liability obligations and entitlements.

Due-Care related Uncertainty: RON I

Uni-lateral care accidents:

- Only the injurer can take care; x
- TAC is $x + \pi(x)D(x) = x + L(x)$.
- Efficient care level, x^*, is unique. That is, x^*uniquely solves

$$\min_x \{x + L(x)\}, i.e.,$$

$$1 + \frac{dL(x)}{dx} = 0 \tag{0.1}$$

- Let z be the Due-Care standard opted by the court, i.e.,
- The injurer is liable iff $x < z$.

However,

- There is uncertainty about z;

Due-Care related Uncertainty: RON II

- z is a random variable with distribution function $F(z)$ such that $F'(.) > 0$.

$$Prob(x \geq z) = Prob(z \leq x) = F(x)$$

Now the injurer will choose x to solve

$$\min_x \{x + \pi(x)[F(x).0 + (1 - F(x))D(x)] \qquad , i.e.,$$
$$\min_x \{x + (1 - F(x))L(x)] \qquad , i.e.,$$

That is, care opted by I, say $\bar{x}$, will solve the FOC:

$$1 + (1 - F(x))\frac{dL(x)}{dx} - F'(x)L(x) = 0, i.e.,$$

$$1 + \frac{dL(x)}{dx} = F(x)\frac{dL(x)}{dx} + F'(x)L(x). \qquad (0.2)$$

Note:

Due-Care related Uncertainty: RON III

- The RHS of (0.2) can be positive or negative.
- Therefore, $\bar{x} > x^*$ or $\bar{x} < x^*$ can hold.

Proposition

If legal error about due care level are unbiased, i.e., if $E(z) = x^*$ then

- *The outcome will NOT be efficient. under the RON.*
- *The injurers will take more than efficient care, especially when they are risk-averse*

Question

What will be the effect of risk-aversion on the part of the injurer ?

Due-Care related Uncertainty: RON IV

Proposition

If legal error are downward biased, i.e., if $E(z) < x^*$ then

- *The outcome will NOT be efficient. under the RON.*
- *The injurers will take less than efficient care, especially if the downward bias is large*

Proposition

If legal error are upward biased, i.e., if $E(z) > x^*$ then

- *The outcome will generally NOT be efficient. under the RON.*
- *The injurers will take more than efficient care, especially if the bias is* **small**
- *However, if the bias is* **large**, *the injurers will take* **efficient** *care*

Actual Care related Uncertainty: RON I

Assume:

- There is No uncertainty about the Due care level
- But, the courts can make errors in assessing the Actual Harm

Consider, uni-lateral care accidents: Suppose

- There are two care levels; $x \in \{0, \bar{x}\}$; $0 \equiv NC$, $\bar{x} \equiv C$
- Probability of Accident; $\pi(0) = \pi_n$, and $\pi(\bar{x}) = \pi_c$; $\pi_c < \pi_n$.
- Suppose $D(0) = D(\bar{x}) = D$, and

$$\bar{x} < (\pi_n - \pi_c)D, i.e., \tag{0.3}$$

$x^* = \bar{x}$

- Let $z = \bar{x} = x^*$

Actual Care related Uncertainty: RON II

Legal Errors: Let

- q_1 is the probability that court will find an actually Negligent injurer to be Vigilant
- $1 - q_1$ is the probability that court will find the Negligent injurer to be Negligent
- q_2 is the probability that court will find an actually Vigilant injurer to be Negligent
- $1 - q_2$ is the probability that court will find the Vigilant injurer to be Vigilant

Assume

$$1 - q_1 > q_2$$

Actual Care related Uncertainty: RON III

Now, if the injurer chooses $\bar{x}$,

- Without errors his costs will be $\bar{x}$
- Under errors his costs will be $\bar{x} + q_2\pi_c D$

If the injurer chooses 0,

- Without errors his costs will be $0 + \pi_n D$
- Under errors his costs will be $0 + (1 - q_1)\pi_n D$

So,

- Without errors he will choose $\bar{x}$ iff $\bar{x} < (\pi_n - \pi_c)D$, which is true.
- Under errors he will choose $\bar{x}$ only if

$$\bar{x} < [\pi_n(1 - q_1) - \pi_c q_2]D$$

Weak enforcement of liability rules: Implications

Weak enforcement of liability rules:

- Weak or no enforcement of liability rules
- Judicial delays
- High Litigation costs, especially for the victims
- ‘Judgment Proof’ Injurers

When implementation is poor

- Some implications are predictable
- But there are other implications too!