

THE POWER OF INCENTIVES
OF MEDICINE AND CANDY,
TRAINS AND
SPARKS

To: PROF. Kim Mu-Sang

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Re; THE POWER OF INCENTIVES
OF NIEDICINE AND CANDY, TRANS AND SPARKS

(1) THE POWER OF INCENTIVES

How Seat Belts Kill

The author first summarized economics in four words: People respond to incentives and give examples to explain this concept. Let's see those examples.

1. Consumption of Gasoline

In late 1970s many people waited half an hour to buy gasoline at a federally controlled price. All economists said that if the price were allowed to rise freely, people would buy less gasoline. When price controls were lifted, the lines disappeared. The economist's faith in the power of incentives serves him well, and he trusts it as a guide in unfamiliar territory.

2. Automobile safety legislation

In 1965, the federal government established a wide range of automobile safety legislation. However, the number of auto accidents increased. The reason is that the threat of being killed in an accident is a powerful incentive to drive carefully. But a driver with a seat belt faces less of a threat. Because people respond to incentives, drivers are less careful. The result is more accidents. This is the same principle that predicted the disappearance of gasoline lines. When the price of accidents is low, people choose to have more accidents.

Driving recklessly has its costs, but it has its benefits too. People get where you are going faster, and you can often have a lot more fun along the way. When you drive a car, people like to look for a tape cassette. Any of these activities might be well worth a slight increase in accident risk. All people risk death every day for relatively trivial rewards. We need not ask whether small pleasures are worth any risk; the answer is obviously yes. The right question is how much risk those small pleasures are worth.

Some drivers influence the behavior of others. Those ubiquitous Baby on Board signs provide an example. The signs are intended to signal other drivers that they should use extraordinary care. However, raw accident statistics cannot reveal how drivers respond to Baby on Board signs.

3. Better birth control

The invention of a better control technique couldn't reduce the number of unwanted pregnancies because the invention reduces the price of sexual intercourse and thereby induces people to engage in more of it.

4. Death penalty

Criminal law is critical area for understanding how people respond to incentives. A case of particular interest is death penalty. The deterrent effect of the death penalty has been studied intensely by many government commissions and academic scholars. Often their studies consist of nothing more than examining murder rates in states with without capital punishment laws. Economists tend to be harshly critical of these studies because they fail to account for other important factors that help to determine murder rates. On the other hand, the refined statistical techniques collectively known as econometrics are designed precisely to measure the power of incentives. The pioneer in this effort was Prof. Isaac

Ehrlich of the University Buffalo. During the 1960s, on average, each execution that took place in America prevented approximately 8 murders. His methods have been widely criticized by other economists, but there is wide spread agreement in the economics profession that the sort of empirical study that Ehrlich undertook is capable of revealing important truths about the effect of capital punishment.

5. Hot cup of coffee, Rats and Pigeons

There is evidence that people respond significantly to incentives even in situations where we do not usually imagine their behavior to be rational. When people hand a person an unexpectedly hot cup of coffee, he typically drops the cup if he perceives it to be inexpensive but manages to hang on if he believes the cup is valuable.

The response to incentives may be as innate as any other instinctive behavior. In a series of experiments at Texas A&M University, researchers have found that rats and pigeons respond appropriately to changes in prices, income, and wage rates, These are precisely the responses that economists expect and observe among human beings.

6. Conclusion

Economists are forever testing the proposition and forever expanding the domain of its applicability. Whereas we used to think only about shoppers responding to seat belts, murders responding to the death penalty, and rats and pigeons responding to wage income, and price changes. Economists have studied how people choose marriage partners, family sizes, and levels of religious activity and whether to engage in cannibalism. Through all the variations, on theme recurs: Incentives matter.

(2) OF MEDIC-INE AND -CANDY, TRAINS AND SPARKS

1. Medicine and Candy

Bridgeman made candy in the Kitchen of his London home. Dr. Sturges lived and practiced medicine in a house around the corner. In 1979, Dr. Sturges built a consulting room adjacent to Bridgeman's kitchen. After completion of consulting room, the doctor new that he couldn't do his job because of noise of Bridgeman 's machine. Sturges sued against Bridgeman to close his business.

Judges ruled for Sturges. In justifying their decision, the judges explicitly referred to its effects on the production of various goods and services. However, the judges were wrong. They were in fact powerless to affect the production of candy or of medical care.

For example, suppose that Bridgeman earns \$1 00 per week in the candy business, and Sturges can earn \$200 a week in consulting room. If Judges ruled for Sturges, the neighbor gets more medical services but less candy. On the other hand, Judges ruled for Bridgeman, he can make noise. However, Sturges can offer a deal that he will pay \$150 a week if Bridgeman turn down machines. Bridgeman can get \$150, and Sturges can earn \$50 instead of \$0, Each part benefits, and the neighbor

still gets more medical services but less candy. In short, Bridgeman shuts down regardless of the judges' decision. Their ruling has no impact on this question. Economists are fond of summarizing this observation by saying that the court's decision "does not matter."

Bridgeman and Sturges might not agree with this wording, because the decision matters very much to them. Judge's decision does matter to Sturges and to Bridgeman; it doesn't matter to anyone else. The decision does not affect the allocation of resources. Economists are far more concerned about the allocation of resources than they are about transfers of income between individuals. The conflict between Sturges and to Bridgeman is a conflict over who should control a resource.

Sturges protected by both a property right and a liability rule. Either of these ruling favors Sturges. However, the court cannot affect the profitability of either enterprise and therefore cannot control how the resource is employed.

This startling observation about the impotence of judges was made in 1961 by professor Ronald Coase of Univ. of Chicago Law School, It also marked the birth of a new academic secilty: the economic analysis of law. Coase's Theorem applies whenever the parties to a dispute are able to negotiate, to strike bargains, and to be confident that their bargains are enforceable. Coase's Theorem says that Judges' decision don't matter.

However, it's easy to find examples Coase's Theorem does not apply. The following is an example.

2. Trains and Sparks

Railroads sometimes run tracks though farmland. The trains throw off sparks, which occasionally bum the crops. If there is only one farmer involved, then Coase's Theorem answers None, and Not at all. If the court rules for the farmer, the railroad can still offer can to buy back its right of way. If the court rules for railroads, the farmers must be compensated. The only thing that the court really decides is who will pay whom.

But when many farmers affected, the situation becomes more complicated. In a case like this the court's decision does matter. If the railroad is made liable for crop damage, it might run fewer trains or install spark control equipment, but it is unlikely to be able to strike deals with all of the farmers to remove their crops. If the railroad is freed of liability, the farmers might remove their crops but are unlikely to form a coalition to buy sparks control equipment for the railroad.

Prior to 1961, all economists would have answered that railroad is liable because the, sparks, create damage. However, Coase analyzed this argument and pronounced it wrong. What crates damage is the simultaneous presence of sparks and crops in the same place. In this case, the economically efficient outcome is achieved only if the railroad is not liable

We come to the flip side of Coase Theorem. When circumstances prevent negotiations,. entitlements - liability rules, property rights, and so on - do matter. Moreover, the traditional economist's prescription for efficiency - making each individual fully responsible for the costs he imposes on others - is meaningless. It is meaningless because the costs in question result from conflicts between two activities, not from either activity in isolation. The traditional prescription blinds us to the fact that either party to a conflict might be in possession of the efficient solution and that the wrong liability rule can eliminate the incentive to implement this solution.

3. Economist's advice to the court

If the goal of court is economic efficiency, then there is much to be learned from Coase's analysis and the body of knowledge that has grown from it. Judges often express explicit interest in the economic consequences of their action and economists believe that such considerations have played a role in the evolution of the common law.

1) A note of reassurance

Subsequent negotiations will lead to an efficient allocation of resources that are entirely independent of what you decide.

2) A note of caution

Do not attempt to decide a case by deciding who is fault.

3) A note of condolence

It might be very difficult for you to tell who can prevent the damage more cheaply

4) A suggestion

Try to make it easier for the parties to negotiate. If they can, then we are back in the situation where you can't wrong.

The examples of Coal miners and patients, with AIDS show how the advice can work well. The Court should not even attempt to estimate costs and benefits. Instead, they are best revealed through negotiations between parties. The court should consider which liability rule is least to interfere with these negotiations.