

Is There an “Informative Function of Law”?

Two experimental tests

Jordi Tena-Sánchez

Analytical Sociology and Institutional Design (GSADI)

Expressive Function of Law

- Law has effects on behaviour that go beyond deterrence and also beyond legitimacy that citizens give to it
- There are different complementary theories about the different ways in which law can have expressive effects

Informative Law

- Law can provide information about intrinsic characteristics of the world. This information causes citizens to update their prior beliefs and thereby changes individual behaviour

D. Darmaphala and R. McAdams (2003): The Condorcet Jury Theorem and the Expressive Function of Law

- Law can have expressive effects
 - Even when politicians do not have greater expertise on the subject than citizens
 - Through the process of information aggregation inherent in legislative decision-making

Majority rule leads to decisions that are superior to those of any individual if:

- There is a group of individuals, with identical preferences, who must each vote for one of two alternatives
- Each individual gets a private signal indicating which of the alternatives is better for the group
- Each signal is more likely to be correct than not
- Sincere vote

Dharmapala and McAdams show that:

- A body of rational legislators will ban a behaviour if and only if they think that it is harmful for common good
- Rational citizens who observe the vote will update their prior beliefs and thereby change their behaviour
- Notice that it happens because citizens know that legislators are a group and they know that, in these conditions, group decisions are more probably to be correct than those of any isolated individual

Problems and prediction

- Unrealistic assumptions
- Law will not cause expressive effects in the described conditions (and, further, if it does cause them, we would still lack the mechanism that explains them)

Experimental design: participants

- 63 subjects
- Divided in two groups: control and treatment

Experimental design: the “signal”

- Driving under the influence of alcohol is a major factor increasing the risk of a road accident. While the dangers linked to drink-driving are fairly well understood, the phenomenon is still widespread in Europe
- The mean speed of traffic is the most important risk factor for road accident fatalities. It has a more powerful effect on road accident fatalities than any other known risk factor, including the overall amount of travel
- Many studies have shown that talking on a mobile phone while driving increases the risk of road accidents

Experimental design: questions

1. How many times do you think that driving with a blood alcohol concentration of 150 mg/100 ml (1.5 g/l) compared to a blood alcohol concentration of 0 mg/100 ml (0 g/l) increases the risk of a person having a road accident fatality? (the legal limit in the United Kingdom is 80 mg/100 ml - 0.8 g/l)
2. When a person talks on a hand-held mobile phone while driving, what percentage of traffic signals do you think they miss?
3. If a person exceeds the speed limit by 6 miles per hour (10 km/h), by what percentage do you think that the risk of having an accident increases as compared to driving at the maximum speed limit?

Experimental design: treatment (I)

- 5 participants are chosen at random to form a “legislative body”
- They must decide if would vote for or against a law to lower the speed limit by 5 km/h
- We let them know we will pay them according to how well their decisions predict the results of a study they hadn't seen yet

Experimental design: treatment (II)

- All subjects in the treatment group observed the whole procedure

- In this way, we made sure that participants knew that "legislators" were taking the decision:
 - Without expert information,
 - And having an incentive to vote sincerely

Experimental design: treatment (III)

➤ Prediction:

- Risk perception associated with driving too fast will be significantly higher in the treatment group

➤ Treatment only affects one of the variables (speed)

- Design strategy in order to avoid that participants completely understand the purposes of the experiment
- Check if a *spill-over* mechanism could be at work

Results

Wilcoxon Two-Sample Test	
	Two-Sided Pr > Z
Alcohol	1.0000
Mobile	0.2567
Speed	0.7617

Informative law: a “realistic” mechanism

- Law can have an expressive effect, not through the process of information aggregation, but as a consequence of the fact that during the process expert information on the topic is revealed

The new design (I)

- The legislators were shown the results of the study ***before*** voting
- All subjects in the treatment group observed the whole procedure
- In this way, we made sure that participants knew that "legislators" were taking the decision:
 - With expert information,
 - And having an incentive to vote sincerely

The new design (II)

➤ Prediction:

- Risk perception associated with driving too fast will be significantly higher in the treatment group

Results

Wilcoxon Two-Sample Test	
	Two-Sided Pr > Z
Alcohol	0.7972
Mobile	0.0641
Speed	0.8368

Conclusions

- Evidence to support the existence of an *informative function of law* has not been found
- However, it is still possible law may have informative effects in some of the proposed ways (or both) in cases where there exists more uncertainty about the legislated topic

Many thanks for your attention



goadi

Jordi Tena-Sánchez