Response to Gordon Tullock

The deterrence theory of punishment is, after all, simply a special version of the general economic principle that raising the price of something will reduce the amount purchased.

McKenzie and Tullock (1978, 188)

Professor Tullock concludes with two comments about my article; I will take issue with the second. Since he does not specify in what respect my article is "irrelevant," I will have to second-guess his argument.

There are two possible lines of reasoning in Tullock's note. The first is that my article is irrelevant because the modeling (although "correct" according to his judgment) does not capture important aspects of reality. In this sense, irrelevant means unrealistic. The second is that the article is irrelevant because people knew its content, or were behaving according to its content without having read it. In this sense, irrelevant means trivial.

Tullock oscillates between these two arguments. For example, when he claims that "the real issue is whether it is indeed true that the police are a self-motivated unit with their own preferences which just exactly offset the action of the legislature when it increases the punishment for a crime" (p. 142), or when he attacks (en passant) mixed-strategy equilibria, he questions essentially the realism of my model; and when he argues that "no economist has ever recommended an increase in the penalty with an exactly offsetting reduction in the probability of getting caught as a way of reducing crime" (p. 142), he implies that the model is trivial. I will address both possible arguments.

LACK OF REALISM

The police (in my article) do not aim to offset the actions of the legislature. The assumptions of the article specify that the police are a rational actor who prefer to monitor if there is crime and not to monitor if there is no crime. It turns out (that is, the solution of the game prescribes) that the police reduce monitoring when penalties go up.

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Anticipating objections such as that raised by Tullock, that the police may not determine their behavior exclusively by what happens in the monitoring game and that they may, by and large, obey orders from headquarters, I weakened my assumptions even further: I assumed that most police agents will monitor regardless of the frequency of crime, while a small proportion will continue to prefer not to patrol if there is no crime. Even in this more realistic situation, the equilibrium strategy of the police overall is the same (see my Model 6).

Possibly Tullock, like Rapoport in a previous issue of this journal, or Bianco and Ordeshok (1990) and Hirshleifer and Rasmusen (1990) elsewhere, objects to the realism of one set of assumptions. I would welcome a discussion on the realism of the assumptions, whether it involves discrete choices of the actors, mixed-strategy equilibria, or anything else. However, this discussion will necessarily be a long one: There are six models with different assumptions and all of them lead to the same outcome.

TRIVIALITY

It may be the case that Tullock’s argument is that my model is irrelevant because, in practice, people apply its prescriptions anyway. For example, Tullock argues that “when governments get worried about crime, they both increase the severity of the sentences and increase the police force” (p. 142). I have two objections to this argument. The first is that most people (including economists) believe that the severity of penalties affects crime rates and not police behavior. Consider, for example, arguments commonly made in favor of the death penalty, or the empirical scientific articles which have frequency of crime as their dependent variable and severity of penalty as one of the independent variables, or the quote at the beginning of this piece. My second objection to Tullock’s argument is that although any comparative statics is possible, according to my article, increasing both penalties and police forces is counterproductive because one offsets the other. So, the policy prescriptions supported by my article are quite different from the conventional wisdom.

Why does Tullock consider irrelevant (that is, unrealistic and/or trivial) an argument about which other economists have conceded that “to the extent it applies, the usual arguments for and against policy measures like criminal sentencing, tariffs, taxes, subsidies, and regulations are gravely weakened”? It seems to me that Tullock has misread my article. Several times he claims
that I “have an equilibrium crime rate built into [my] model” (p. 143), that I “have assumed an ironclad equilibrium and then demonstrated that granted it is ironclad, you cannot get away from it” (p. 143), that “obviously, under these assumptions, the frequency of crime is constant” (p. 142). However, none of these statements were part of my assumptions.

I made simple (and I believe quite realistic) assumptions about the preferences of the police: that at least some of them prefer not to monitor when there is no crime. The outcome was an equilibrium pair of strategies with some of the properties that Tullock dislikes: that the frequency of crime remains constant when penalties change and that it changes when police forces increase.

Of course, since every mathematical model is tautological, the truth of my assumptions is preserved in my conclusions. In this sense, the ironclad equilibrium is part of my model. But it is part of the conclusions of my model, not of the assumptions.

Saying that Oedipus slept with the queen is not the same as saying that Oedipus slept with his mother. Most people would not object to the first, until they know that the queen was in fact his mother. Similarly, assuming that some police agents will prefer not to monitor if there is no crime is not the same as assuming “an ironclad equilibrium” where, as Tullock states, “the probability of punishment is, because of police behavior, the reciprocal of crime” (p. 142). And most people (including Tullock) would try to increase penalties in order to reduce crime, until it turns out that doing so only affects the behavior of the police.

―George Tsebelis

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NOTES


2. I have found out since writing the article that there is one exception to this statement. Consider a crime, like drugs, where the police are overwhelmed by criminal activities (technically, that the equilibrium frequency of monitoring is higher than what the police budget permits). In this case, increasing penalties reduces the equilibrium frequency of monitoring and may bring it inside the budget constraint. Therefore, both increasing penalties and police forces may act in the same direction instead of canceling out each other.

REFERENCES