

Nobel Prize In Economics Diminishes All Other Nobel Prizes

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"The Nobel prize in economics diminishes the value of all other Nobel prizes"

A member of the Royal Swedish Academy of Sciences proposes that the prize in economics should be broadened in scope or abolished. The prize in economic sciences in memory of Alfred Nobel is most frequently awarded to economists who, by using mathematics and disregarding political views, claim that they can prove optimal ways of organizing society. These attempts at mimicking the objectivity and methods of the natural sciences are not acceptable. The economics prize diminishes the value of the other Nobel prizes. If the prize is to be kept, it must be broadened in scope and be disassociated with Nobel. This is the view of, among others Peter Jagers, professor of mathematics who is also a member of the Swedish Royal Academy of Science who awards the prize.

In the early 1960s, a group of university mathematics teachers in Gothenburg used to go to a certain café to play pinball. Surely, you know the game? It's played on one of those machines that coughs up a number of steel balls when you put a coin in the slot. The point of the game is to maximize the number of points by controlling the balls with two flippers and making the pinballs fall into holes and hit various objects that make ringing noises as many times as possible before the pinballs return to where they came from.

The group included both senior lecturers and professors, all extremely talented mathematicians. But there was no clear connection between being skilled at the game and scientific competence. In principle, it should probably be possible to calculate the perfect trajectory for the pinballs, but the advanced physical and physiological models this would entail were clearly too advanced even for the professors. The matter was rendered even more difficult because some players would attempt to sabotage the game by casually bumping into the machine to upset the pinballs. Anyone who would have suggested that the game of pinball should be reserved for mathematicians, physicists and physiologists

would have been regarded as slightly deranged.

However, this is not the case in economics. In economic science, it is claimed that it is possible to construct mathematical models that can be used in calculating the optimum behaviour of individuals in much more complex decision making situations than the one outlined above. And that is not all. Economists believe that they can prove by referring to those models that they are more suited to making political decisions than are the politicians themselves!

Let us use the latest prize in economics (The Bank of Sweden Prize in Economic Sciences in Memory of Alfred Nobel which is its correct name) as an example. The prize was awarded to Finn E Kydland and Edward C Prescott. This is an excerpt from the statement of The Royal Academy of Science:

"Kydland and Prescott showed that economic policymakers who cannot commit to a rule in advance often will conduct a policy that gives rise to high inflation, despite their stated objective of low inflation. Already in their 1977 article, the Laureates considered the possibility of conducting fiscal and monetary policy on the basis of long-run rules, which are difficult to change. This work has had a far-reaching impact on reforms carried out in many places (such as New Zealand, Sweden, Great Britain, and in the Euro area), aimed at legislated delegation of monetary policy decisions to independent central bankers with different kinds of pre-specified price-stability objectives."

So, what is in the famous 1977 article? The heart of the article is a mathematical model, an optimization problem with side conditions. A rational decision maker, let's call him P, knows the exact relations between a number of economic variables, some of which are under the control of P. Furthermore, P knows the exact outcomes of his decisions at a certain stage in the economy when the decisions are made. P is guided by "a widely accepted social goal function" which has such characteristic – for example being differentiable and having the right convexity in its graphs – that an unambiguous and optimum solution can be calculated. Despite of this, the decisions do not lead to an optimized solution. The reason for this is that P has "opponents" to consider and this is not only "nature", but it also includes "rational economic agents".

The level of abstraction in the article is extremely high. The model can be used for economies where P represents "the politicians" as a collective, and where the guiding variables are interest rates, monetary assets and the national budget and where the variables of the goal function can be inflation and unemployment rates. It can also be used if P is a company that needs to decide which investment strategies would maximize the profits. In both cases, the decision power is monolithic. All conflicts of interests, be it between politicians, between political parties or between different owners in a company, have been removed from the model.

Of course, these types of hypothetical societies or companies may be interesting in their own right, as utopian schemes or as points of comparison with a more complex reality. However, the claims of those awarding the prize go much further than this.

As can be seen in the academy's motivation, the laureates are supposed to have shown that part of economic policy-making should be removed from the sphere of the general public and their elected representatives. Instead, the decision-making power should be transferred to experts, who should be protected by law from being directed by their politically elected supervisors.

There may of course be reasons for why there should be central banks directed by experts, just as there may be reasons why this shouldn't be the case. There has been a heated debate on this matter both among politicians and among economists. However, the reasons cannot, even with the best intentions, be derived from the sort of abstract reasoning that is now rewarded with the prize in economics.

The basic problem is that economic science cannot be compared to natural sciences. Especially physics and chemistry are universal in the sense that their findings are equally valid in the U.S. as they are in China or Germany. They are independent of politics and economic systems. The equations governing the construction and durability of a concrete bridge are the same irrespective of country. If you use one particular method for building the bridge it will collapse. If you use another method it will stand. Medicine is not equally universal, as there are controversies between different schools of thought. However, compared to the social sciences there is an astounding degree of agreement on how to assess the quality of different research findings.

In the mid 1960s the world economy was fairly stable. Herbert Tingsten declared the demise of ideologies. This was also the time when the belief that economists could draw up laws governing economies, not very different from Newton's laws of gravity, was at its peak. It was in this intellectual climate that the idea for an economics prize in the wake of the Nobel prize was born in the Swedish central bank. In 1969, the first prize was awarded to Paul A Samuelson and Jan Tinbergen, both symbols for a mathematically oriented and purportedly politically neutral discipline of economics.

The true art of the natural sciences is the ability of simplifying matter in a manner that allows mathematics to be used while still producing meaningful results. Economists, however, do not have the same favorable conditions. The assumptions that have to be made about human behaviour to be able to solve the equations are simplified to the extent that they become meaningless. Political science, sociology, history, social anthropology and even business economics are all, on average, more careful in their use of mathematical models. We find it hard to believe that a political scientist would dare to claim that it would be possible to 'prove' that certain ways of organising a society are

optimal, solely based on mathematics and with disregard of any kind of political value assumptions.

One could perhaps argue that this may not really matter, but it does and it does so for a number of reasons. It is true that the prize in economics has been awarded to broad non mathematically-oriented economists such as Gunnar Myrdal and Friedrich von Hayek. This joint prize illustrates, by the way, how awkward it all becomes when one tries to neutralise the political dynamite inherent in the prize.

The tendency, however, has been to award the prize to a special kind of economics, which tries to mimic the methods and claims of objectivity found in the natural sciences. This is, in our view, deeply unfortunate since the prestige of the prize will make it dictate the direction of tomorrow's research.

It is not reasonable to claim that the economics prize has been awarded for such great insights into the workings of society that it is on par with the findings in physics when it comes to the understanding of the structure and nature of matter. The prize in economics devalues all the other Nobel prizes.

So, what should be done? We see that the three responsible authorities – the Bank of Sweden, the Nobel foundation and The Royal Academy of Science – have four alternatives:

1. Nothing is done. All the Nobel prizes gradually diminish in value.
2. The prize in economics is abolished.
3. Keep the prize, but completely remove the association with the Nobel prize. Award the prize on a different day.
4. Try to gradually make the prize more in line with how the broad array of modern social sciences understand how the economy works in different types of societies. Thus, the prize could be awarded to a historian or a political scientist who have furthered our understanding of the economy in a social perspective, just as well as an economists, mathematician or statistician. This would be challenging, however, since it would probably be much more difficult to agree. On the other hand, the Swedish academy has succeeded in finding worthy laureates for the prize in literature, so it should not be completely impossible.

We would argue for the fourth alternative. But, on the other hand, now that the Bank of Sweden's need for independence has been mathematically proved through this year's prize, it would only be fair to make up for this by an initiative that once and for all would remove any association between the economics prize and the Nobel Prize.

Johan Lönnroth

Senior lecturer in economics, former member of parliament (left)

Måns Lönnroth

Senior lecturer in technology and social change, director-general

Peter Jagers

Professor of mathematical statistics, Chalmers

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r           c
v           s a           Whether strength of body or of mind, or wisdom, or
i           m p           virtue, are found in proportion to the power or wealth
e           a e           of a man is a question fit perhaps to be discussed by
n e           .           slaves in the hearing of their masters, but highly
@ r           c m           unbecoming to reasonable and free men in search of
d           o           the truth. -- Rousseau
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