



Article

Elinor Ostrom and the solution to the tragedy of the commons

ECONOMICS



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Between the seventeenth and nineteenth centuries, England promulgated the Enclosure Acts, which were responsible for privatizing (and fencing in) the lands for grazing livestock, so that they could be devoted to intensive cultivation. Until that point, those lands were common and under-used, without an owner except the sovereign, in a purely formal sense, but freely accessible to anyone. The English shepherds, farmers, cultivators, and hunters who, until then, had freely used the commons for their livelihood were excluded or limited in access due to the enclosures and had to move with their families from the countryside into the cities.

This Great Transformation, as the socio-economist Karl Polanyi defined it, caused low-cost labor to be concentrated in places like the city, a precondition for exploiting the use of Watt's steam engine and

concentrated in places like the city, a precondition for exploiting the use of Watt's steam engine and opening the English Industrial Revolution. In about the same years, with the promulgation of the Homestead Act, a similar process occurred in the U.S. at the expense of the Native Americans.

The privatization of land had the advantage of allowing for a more intensive use of resources and thus promoting the economic development of the West, but at the cost of shameful socio-hygienic conditions for most of the worker population that were only solved (at least partially) after many decades (or centuries) with the labor laws and a welfare state.

Around the same time, but in another place in the world, in Töböl, Switzerland, there was a substantially different definition of the law on land. The management of land was not assigned to either a private or a government entity, but belonged to a community of people that used it. This particular instance of "collective" institutions was stable and efficient for centuries in Töböl, showing that there may be a third way (and an efficient and effective one) that lies between the strictly state management of resources (like in England before the enclosures) and strictly private management (in England after the enclosures). This represents the greatest empirical and theoretical contribution of Elinor Ostrom.

Unfortunately, Elinor Ostrom, the first woman (and currently the only one!) to win the Nobel Prize for Economic Sciences in 2009, died on June 12 at age 78 from cancer. In April of 2012, Time magazine had named her one of the 100 most influential people in the world. She worked at the University of Indiana and headed the "Vincent and Elinor Ostrom" Research Center for political studies and analysis with her husband.

Her research concerned the governance of common resources (also known as commons). The commons are natural resources, like land for grazing, fishing areas, forests for timber, water for the irrigation of farmland, and also more intangible resources, like knowledge, for which it is very expensive to control and fence in "user" consumption. The problem with these types of resources, as shown in 1968 by Garrett Hardin (but Aristotle had already observed a similar phenomenon) is that they are over-exploited, or at least their care and sustainability is overlooked by users. The reason is that people behave opportunistically (like free-riders) and consider the resource they are accessing, without the possibility of being excluded, as a free resource, and they therefore maximize their private benefits but neglect, or collectivize, the costs.

Hardin coined the phrase "tragedy of the commons" to describe this phenomenon and gave social sciences one of the most evocative metaphors after Adam Smith's "invisible hand". These two metaphors are effective because they capture two essential social situations in marked contrast to one another. When social interactions are guided by an invisible hand, they reconcile individual choice and socially desirable results, whereas in the tragedy of the commons, individuals pursuing their private objectives cause disastrous consequences for themselves and others. The solution to the tragedy of the commons.

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before the contribution of Ostrom and her studies, was to privatize resources or, in a diametrically opposite view, to form a Leviathan state in order to manage them.

Instead, Ostrom demonstrated that, within communities, rules and institutions of non-market and not resulting from public planning can emerge from the bottom up to ensure a sustainable, shared management of resources, as well as one that is efficient from an economical point of view. Besides the village of Törbel, Ostrom shows examples of common lands in the Japanese villages of Hirano and Nagaïke, the huerta irrigation mechanism between Valencia, Murcia and Alicante in Spain, and the zanjera irrigation community in the Philippines. Also, the property in the form of "vicinale", neighborhoods, typical of regions of Italy like Emilia, the Belluno and the Ticino, are also collective institutions, although not investigated by Ostrom. The argument then has a more modern example if one notices that even the "Wikipedia community" is a form of successful collective institution of a communal resource (knowledge).

In all these cases, the "institutional details" are essential. Starting from the theoretical contributions of Ronald Coase, Douglass North and Oliver Williamson, Ostrom isolates the main characteristics of local self-government. The first condition for the institutional basis of the success of these mechanisms is the clarity of the law (Who can do what? What can one not do? Who punishes whom? And how?). In addition to being clear, the rules must be shared by the community. This is why another essential element of self-government is the establishment of methods of collective and democratic decision-making, able to involve all users of the resource.

Furthermore, the mechanisms of conflict resolution must be local and public, so as to be accessible to all individuals of a community. Besides mechanisms of graduated sanctions, a mutual control of the resource among the users themselves must be established. This has a double merit. First, those interested in the proper management of the resource (the user) also have an incentive to check that management, and second, the users are also the subjects that have the best information on how the resource can be used in an inappropriate manner by the others. Finally, the rules, in addition to being clear, shared and made effective by all users, must not conflict with higher levels of government.

With this last condition, it is clear that the great dichotomy of state and market is partial and too narrow, and therefore destined to crumble in theory (Ostrom writes in her *Governing the Commons*). More correctly (as the title of the Ostrom's Nobel Lecture "Beyond Markets and States: Polycentric Governance of Complex Economic Systems" reminds us) one must take into account the fact that, in reality, multiple and complementary (and not strictly alternate) levels of "governance" of the same resource emerge and can coexist. As Ostrom stated, the term polycentrism indicates a plurality of interdependent decision-making centers on the management of a resource. The next step in the research, inherited from Elinor

Ostrom is that of determining under which conditions the various levels cooperate as a single system or conflict with one another, and we should remember that the Tocqueville-Acton Research Center dedicated its 2011 annal to “Subsidiarity and Institutional Polyarchy”.

(translation by Maria Bond)

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