

Tragedy of the Partnership: A Critique of Elinor Ostrom

By WALTER BLOCK* and IVAN JANKOVIC†

ABSTRACT. Elinor Ostrom thinks she has discovered a third way apart from private and government property: the commons. In her view, there is no “tragedy” associated with this third option. The present article takes strong issue with her. Our claim is that she has not properly distinguished between a commons and partnership arrangements. In the former case, outsiders cannot be excluded from entry; in the latter, they can. The reason for this confusion between the commons and private property in Ostrom’s work is that she believes private property is possible only if government protects and enforces it. We show by using various historical examples that this assumption is wrong, and hence the central tenet of Ostrom’s model of the commons fails.

I. Introduction

The academic reception of Elinor Ostrom’s work in the social sciences is a curious one. One could rarely find an example of an economic theory so widely and overwhelmingly praised and accepted among such a diverse and often hostile group of authors. It is more than passing curious not only that Elinor Ostrom, a political scientist, was awarded a Nobel Prize in Economics, but that her work is equally praised by a wide spectrum of authors, from the far left to the far right.¹ Socialists like her argument because it seems to show that free markets and private property are not the magical solutions for all economic problems, while some free-market-oriented authors do so because it seems to support the Hayekian (1945) philosophy of using the local

*Walter E. Block, Ph.D., is the Harold E. Wirth Eminent Scholar Endowed Chair and Professor of Economics at the Joseph A. Butt, S.J. College of Business, Loyola University New Orleans.

†Ivan Jankovic is a Ph.D. candidate in political science at Simon Fraser University.

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and tacit, spontaneous-order knowledge for social cooperation and coordination, instead of one-size-fits-all government-imposed solutions (Pennington 1997). In reviewing the literature on Ostrom we were unable to locate a single critical paper or comment on her work in any academic journal or book.² When we add to this that her major argument is considered to be a radical and path-breaking revision of both classical state-centered environmentalism and free-market doctrines, this remarkable lack of critical scrutiny becomes somewhat of a mystery.

The purpose of this article is to try to correct this uncritical acceptance of Ostrom's work by concentrating on one of the essential elements of her theory: the doctrine of "governing the commons" as a solution for the famous problem of the "tragedy of the commons." As we hope to demonstrate more in detail, Ostrom makes two errors that undercut the basis for her entire project.

First, she seems to conceptually misunderstand the very notion of private property rights and therefore to conflate one specific contractual variation of those rights, namely, partnership or *condominium*, with an allegedly new form of "governance" that is neither under government control nor that of free-market participants. All the time, Ostrom *thinks* she is talking about the "commons" and how it is "governed," whereas in reality she is discussing various forms of private partnerships.

Second, this error is based on and is actually reinforced and amplified by a further mistake of assuming that any viable system of commercial self-regulation or enforcement of private property rights always has to be based on government force and imposed on individuals from without. We demonstrate that this is not the case and that historically many legal and economic frameworks regulating market activities emerged spontaneously in the market system with voluntary cooperation.³ Therefore, the fact that what Ostrom calls "governance of the commons" is not enforced by the government does not deny it is a form of private property.

In conclusion, we argue that the unjustified support for Ostrom's allegedly revolutionary findings is ill-advised: her research is significant and illuminating but its character was radically misunderstood by both the author and her many and diverse admirers. She did not discover any "new" form of governance beyond private property and

government control. Rather, she discussed some interesting variations in contractual regulation and enforcement of private property rights. Her enterprise properly belongs to the sociology of contracts, rather than to economic theory.

In Section II we present her model, and some of its deficiencies. Section III is given over to an examination of the sources of Ostrom's error. The subject of Section IV is Ostrom's misguided Hayekianism. We conclude in Section V.

II. The Model and the Problems with It

Ostrom (1990) starts her most well-known book, *Governing the Commons*, by defining and briefly discussing the "commons" as well as private property rights and government intervention. Here, at the first step, she injects conceptual confusion into the analysis, an error that plagues and renders untenable the rest of the book. She starts by defining commons in a conventional way, by citing Hardin (1968: 1244) talking about the situation with many herders and public land that becomes overgrazed since nobody has an incentive to limit the exploitation of the common property:

Therein is the tragedy. Each man is locked into a system that compels him to increase his herd without limit—in a world that is limited. Ruin is the destination toward which all men rush, each pursuing his best interest in a society that believes in the freedom of commons.

But, curiously enough, although she mentions that the critical element responsible for the tragedy of the property held "in common" is that it is "open to all" (it is not excludable) Ostrom almost immediately forgets all about this insight of hers, and in the rest of the book treats the commons as simply a synonym for group property. The effect of this is that the very definition of private property, known from the Roman law until today, is rendered irrelevant; Ostrom offers her own idiosyncratic definition in which private property means by and large that only a "single individual" has control over a definite resource. This is obvious in her argument against privatization of the "commons": the only way she can imagine the commons could be privatized is by

dividing up a territory among the two or more herders. And then Ostrom (1990: 12) argues that this is an economically inefficient system:

Those recommending the imposition of privatization on the herders would divide the meadow in half and assign half of the meadow to one herder and the other half to the second herder. Now each herder will be playing a game against nature in a smaller terrain, rather than a game against another player in a larger terrain. The herders now will need to invest in fences and their maintenance, as well as in monitoring and sanctioning activities to enforce their division of the grazing area.

The obvious problem with this is: Why would the herders necessarily have to divide the land up into the two separate pieces? This is a completely arbitrary limitation. It would be the same as to say that the privatization of a formerly state-owned enterprise cannot be carried out by selling it to two partners who would jointly manage and control the entire establishment; that there has to be one and only one exclusive owner of every single asset or firm.⁴ This is clearly incorrect. However, Ostrom, without giving us any reason whatsoever, urges us to accept this constraint in the case of meadows or fisheries and other environmental goods: Why would the two specific contractors, the co-owners of a meadow, be limited in their contractual options in a way no others are? Why could not they share the ownership and control rights in the same way the partners share those rights in the case of other commercial enterprises? We do not assert that these two *would* do this, merely that they *could*. Ostrom does not see this even as a possibility. We do not find such arbitrary limitations in the case of ownership of any conventional commercial asset, owned by more than one person: actually, there is a tremendous diversity of contractual arrangements regulating such kinds of joint ownership.

For examples we have only to look at the variety of contractual forms in the case of firms: there are unlimited liability partnerships; partnerships with asymmetrical liability where some partners bear the full risk while the others have limited liability; corporations that have limited liability in principle, but their governance mechanism is rather indirect with hired managers operating the firm (which is far less common in any kind of partnership). Ostrom assumes, but without offering any evidence whatsoever, that the range of possible

contractual variations in the case of a multi-person ownership over the environmental assets would be far narrower and actually reduced to the physical division of the resource into as many parts as there are the co-owners.

Ostrom (1990: 22) makes her analysis even less consistent when she concedes at one point that privatization actually does not have to mean dividing up the resource: “privatizing may not mean dividing up at all. Privatization can also mean assigning the exclusive right to harvest from a resource to a single individual or firm.” This serves only to further weaken her argument and underlines our previous objection: If privatization could mean the right to harvest (*usus fructus* in Roman law), why could this right be assigned only to individuals or single firms? Why not to a group of individuals, forming a firm organized as a partnership? If harvesting a resource by one man is private property how come it is no longer private property when done by 10 people? By what magic does this get converted into a “commons?” Both one man and a group have a right to exclusively harvest the resource and to prevent anyone else from doing so. The only difference is that in the latter case several people would have to draw up rules determining how to divide the proceeds and how to control and monitor the orderly operation of the agreement. But, this has to be done by the individuals forming *any* kind of business enterprise, including corporations, private partnerships, and so on. It is not clear what is different in the case of Ostrom’s “commons”?

There is no basis for such an assumption at all, and moreover, Ostrom herself unintentionally provides plenty of evidence to the contrary. Simply, the legal and economic essence of private property is not “single individual ownership”; the critical elements, rather, are transferability and excludability—the ability to prevent non-owners from the use and exploitation of the resource in question. Something can be owned by more than one owner, and this is called a private partnership: the contractual arrangement in which two or more people share the proceeds of the use of a given resource or good, according to the stipulations of an agreed upon contract. What places the arrangement under the rubric of private property is not the number of actors involved, but the character of the legal relationship that they have among themselves and towards outsiders.⁵ Unlike the commons where

the resource in question is “open to all,” as Hardin clearly says, so no person can lawfully exclude anyone else from its utilization, the private property regime, whether in the form of partnership or any other, allows a person or a group of people to exclude all the outsiders and regulate their own rules of using the resource as they see fit, without any physical or legal division of property whatsoever. There is not a single, one-size-fits-all template of how partnership relations are to be defined and regulated. Rather, there is a general, one-size-fits-all legal and economic *principle* governing all such arrangements: the partners each own a certain percentage of a thing, or a resource, divide the proceeds and obligations among themselves according to a formula freely agreed upon, and can *together* legally exclude any other persons from utilizing the resource in question. If 20 herders graze their cattle on a meadow, this might mean that a meadow is a “commons,” if they simply found a piece of land and let their cattle graze it. If the 21st and 22nd herders later show up with their flocks, the previous 20 herders in this scenario would not have any lawful means of excluding them. However, if those 20 people share the private property right over a meadow, then the self-same 21st and 22nd herders could be lawfully excluded from grazing and the meadow is not a “commons” anymore. The basic problem with Ostrom’s treatment of private property and the commons is that she simply does not make the distinction between these two cases. This is such a crucial point that we will risk the charge of repetitiveness, and make it again in other words: If Ostrom were to realize, be aware of, admit, this distinction, her entire edifice would fall to the ground.

Therefore, we surmise, Ostrom does not seem to understand the basic definition of private property as a right to control a certain thing and to exclude all others from controlling and using it.⁶ This is best seen by the fact that Ostrom (1990: 23) describes the form of governance that is the main subject of analysis of her book as a “limited access common pool resource.” But, the “commons” cannot be a resource with “limited access.” The very fact of limitation of access indicates that the resource in question is transferred from the status of “commons” into private hands.⁷ Being open to all is the very definition of a commons; abolish open access, introduce excludability and there can no longer be a commons.

One example Ostrom (1990: 62) offers for the alleged non-market governance of the “commons” is the case of Swiss villagers who control jointly the Alpine meadows:

Written legal documents dating back to 1224 provide information regarding the types of land tenure and transfers that have occurred in the village and the rules used by the villagers to regulate the five types of communally owned property: the alpine grazing meadows, the forests, the “waste” lands, the irrigation systems, and the paths and roads connecting privately and communally owned properties. On February 1, 1483, Torbel residents signed articles formally establishing an association to achieve a better level of regulation over the use of the alp, the forests and the waste lands . . . The boundaries of the communally owned lands were firmly established long ago, as indicated in a 1507 inventory document. Access to well defined common property was strictly limited to citizens who were specifically extended communal rights.

Ostrom is here simply employing a definitional⁸ sleight of hand: instead of talking about the “principals” or “partners” (as she did when she was talking about the case of a law firm), who contractually manage the use of their jointly owned private property, she suddenly changes the language and in an obfuscating way describes exactly the same kind of economic activity in terms of political phraseology (“governance,” “self-government,” “communal rights,” and “commons”). Ostrom continues to call the arrangement a “commons” although her own description and the citations she provides make it plainly obvious that it is not a commons at all; it is rather a specific form of partnership of the villagers of Torbel. First, they can *exclude* anyone else from using their so-called communal property. As one of the authors Ostrom cites says, it was not enough to have private agricultural land in the village or around it to be admitted as a co-owner of the alpine “commons”; one has to be admitted by the existing owners. The simple question is: What kind of “commons” is it that has the owners capable of excluding anyone else from its utilization?⁹

Further, Ostrom herself describes the legal arrangements of this alleged case of governing the commons, which make it clear that she is talking about private property arrangements: “Four fifths of the alpine territory is owned by some form of common property; by local villages (*Gemeinden*), by corporations or by cooperatives. The remaining

alpine territory belongs either to the cantons or to private owners or groups of co-owners” (Ostrom 1990: 64). The first problem here is: What is exactly the economic difference between the “local villages” and the “groups of co-owners”? Every village is a group of people. If a “village” has a property right over a certain resource this only means that a given group of people are the co-owners of the resource in question. A “village” or a “group” — they are from the legal and economic point of view one and the same thing. The only way to make any sense of this curious distinction is to assume that if the co-owners are not from the same village, that is private property (groups of “private co-owners”), but if they come from the same village, then that is “governing the commons.”¹⁰

The supreme irony of this is that Ostrom’s main claim is that her “governance” mechanisms represent a thus far unheard of alternative to both private property and government control: the evidence she presents shows, however, that in the Swiss alpine region those alleged “mechanisms” are either some form of private property (corporations, cooperatives, individual ownership, partnerships) or government ownership and control.¹¹ Instead, “beyond the market and the Leviathan,” as the subtitle of one of the chapters of Ostrom’s book says, the evidence she presents says clearly, “either market or Leviathan, and nothing beyond these two.” Simply, the alpine meadows, wastelands, and other “communal assets” in Switzerland that she discusses are in most cases owned and operated by the associations or partnerships of private persons, and their voluntary arrangements are mostly recognized as legitimate by the government. The associations Ostrom describes (partnerships, condominiums, or cooperatives) exercise all the rights of control and use of resources characteristic of any other form of private property: they have a right of *usus fructus* (operating the asset and using the proceeds—income derived from that utilization), the exclusion of other non-owners from using the same asset, exit and entry controls, and, finally, control of the mechanisms of property title transfers.

We encounter exactly the same situation in other examples Ostrom offers as a means to substantiate her concept of alleged local “governance of commons.” For example, Ostrom (1990: 19) describes the management of a fishery in Alanya, Turkey as follows:

1. Each September, a list of eligible fishers is prepared, consisting of all licensed fishers in Alanya, regardless of co-op membership.
2. Within the area normally used by Alanya fishers, all usable fishing locations are named and listed. These sites are spaced so the nets set in one site will not block the fish that should be available at the adjacent sites . . .
3. In September, the eligible fishers draw lots and are assigned to the named fishing locations.

Ostrom (1990: 19) further explains how the fishermen in question sign a formal contract every year, and how they themselves create workable mechanisms for monitoring and enforcing the agreement. Yet, she does not consider relevant the fact that the arrangement in question excludes all other “non-eligible” fishermen from using the resource! She keeps calling the model a “commons”! This, despite the fact that the members of this industry, according to the arrangement, can even sell their fishing rights to other people, which is the critical element of transferability for establishing private property rights. Not only can they exclude others but they also can trade their private shares in the enterprise.

The lack of any serious concept of private property rights in Ostrom’s analysis is best demonstrated by the fact that she explains several typical, even canonical, forms of private partnership in terms of mythical forms of “collective governance.” For example, in order to bolster her case that there could be some third format for resolving the tragedy of the commons apart from government and the markets, she points to law firms, a canonical example of *private* partnerships if ever there was one. Ostrom argues law firms demonstrate that people are sometimes capable of resolving the problem of free riding by non-market forms of coordination. So, instead of treating this quintessentially private partnership as a typical form of free market coordination Ostrom deals with it as a rudimentary and imperfect form of “governing the commons.” Yes, a law firm is not really a commons, she concedes, but nevertheless it uses in an imperfect form the governance mechanism she thinks goes beyond anything the free markets would do and that is much better realized in the environmental cases she analyzes. Ostrom (1990: 23–24) avers:

What is [needed is] . . . an adequately specified theory of collective action whereby a group of principals can organize themselves voluntarily to retain the residuals of their own efforts. Examples of self-organized enterprises abound. Most law firms are obvious examples: A group of lawyers will pool their assets to purchase a library and pay for joint secretarial and research assistance. They will develop their own internal governance mechanisms and formulas for allocating costs and benefits to the partners. Most cooperatives are also examples.

What is really important here is that Ostrom properly characterizes the people who together form a law firm as “partners.” But she does not call the people who create different governance mechanisms to prevent the tragedy of the commons “partners,” despite the fact that what they typically do, as Ostrom herself demonstrates, is nothing less than creating a multi-person private ownership agreement over an asset, and then supplementing it by a contractually agreed upon mechanism of governance and enforcement in order to provide for the division of proceeds and allocation of costs among the partners. Every single example Ostrom uses in her book to demonstrate the allegedly new and specific “non-market” nature of her mechanism of “governing the commons” involves a group of people with joint, exclusive, private ownership over an asset (usually an environmental good, such as meadows, water springs, fisheries, and so on). Just like the partners in a law firm who use internal mechanisms to coordinate their joint use of the firm’s library, offices, or secretarial services, the fishermen or herders use internal contractual stipulations to coordinate the use of their assets held in partnership.

But, quite inconsistently, Ostrom, as we had seen in the case of Swiss villagers, does not count as private property either cooperatives or condominiums, nor even corporations! Every single form of ownership that includes more than one person is for her magically transformed into a mythical case of “communal ownership.” This does not make any sense from a legal point of view. Joint private ownership is as old as Western civilization and survives, even prospers, to this day. The very concept of *condominium* or *Communio pro indiviso* originated in the Roman law and pertained to a joint ownership by more than one person over a certain asset that is either purchased or inherited together. As Mousourakis (2012: 156), a contemporary scholar of Roman law notes, this system

arose when two or more individuals purchased or acquired through inheritance or legacy the same property in common. This form of co-ownership was often voluntarily entered into by partners engaged in a joint business venture. In this case each joint owner had a share in the common property and could use, alienate, pledge or otherwise burden his share as he saw fit. Moreover, in proportion to his share, he had a right of enjoyment of common property. However, he did not have a right of disposal in respect of the property as a whole because such disposal required an agreement among all the co-owners.

All partners retain full access to the asset and the particulars of the division of proceeds are in various ways agreed upon by all of them internally. Ostrom never explains what it is that the classical Roman *Communio in indiviso* or contemporary law firms are doing that does not apply to her villagers, fishermen, and herders. Every single example she offers as “commons” is without exception really a Roman *condominium*.

III. The Sources of Error

The basic reason for the misconception about property rights that permeates Ostrom’s work is the conviction that free markets and private property rights cannot exist in the absence of government control. In Ostrom’s view, police, judiciary, contract enforcement, and adjudication of disputes—all of this is to be provided by the entity called the “state” or even the “Leviathan” state. As Ostrom (1990: 15) says:

Both centralization advocates and privatization advocates accept a central tenet that institutional change must come from outside and be imposed on individuals affected . . . A competitive market—the epitome of private institutions—is itself a public good. Once a competitive market is provided, individuals can enter and exist freely whether or not they contribute to the cost of providing and maintaining the market. No market can exist for long without underlying public institutions to support it.

Obviously, Ostrom is a proponent of the standard political science orthodoxy that identifies the very possibility of peaceful individual cooperation, including market cooperation, with the existence of “public goods,” primarily government judiciary adjudication of disputes, as well as police enforcement of contracts and punishment of

lawbreakers. If any of these elements are missing, there could not be private property rights in force. Hence, whenever she sees an institution that looks like private property, but in whose functioning some of these elements of government public goods to “support” it are lacking, she is puzzled. She then seeks to find some new name and concept to explain it. She cannot accept the possibility that there could be a market without government and that there could be and are private contracts that are not enforced by this institution:

Private-property rights depend upon the existence and enforcement of a set of rules that define who has a right to undertake which activities on their own initiative and how the returns from that activity will be allocated. In other words, rules and rulers are required to establish, monitor and enforce a property system. (Ostrom 2000: 342)

The best and perhaps quickest way to demonstrate the absurdity of this notion of the Leviathan state as the only viable system of enforcement of private property rights is to look historically at some prominent examples of private property rights being protected by private associations and without conventional “public goods.”¹²

The first striking example of such systems is the Roman Republic. First, the courts and judges in the Roman Republic were mostly private; there was a government official called *praetor* whose function it was to monitor the judicial process. But his role was rather limited: to draw up the list of potential judges (*iudexes*) from the private citizenry and then, after a trial was finished, to formalize, rubber stamp the verdict, without the right to change it. The judges were private citizens paid by the litigating parties, not bureaucrats on the payroll of the government. The prosecutor was also a private entrepreneur who would take on this role for money on behalf of the plaintiff. There was no public prosecutor who would protect the law on behalf of the state. The entire legal process was controlled by private persons (Riggsby 2010; Mousourakis 2012).

Further, the very “law” according to which the judges were adjudicating for the most part was a product of private commentaries and studies by the legal scholars, who were not working for the state but for private parties, and whose prestige depended only on their knowledge, quality of reasoning, and public approval. The written law of the Roman Republic, the so called Law of 12 tables, emerged as a codification of

the ancient Roman common law. But it was interpreted in accordance with the concepts and theories of private legal scholars who developed the body of doctrine known as Roman law over the centuries. It was not a product of government edict or legislation, but of the long process of private scholarly refinement, adjustment, and acceptance by the community. As Cicero said, the good *iurisprudence* (legal scholar) should have the ability to perform three functions: *agere, cavere, and respondere*, which meant, respectively, to be a good attorney, to serve as a legal advisor, and, finally, to be able to offer an expert opinion if invited by the *praetor* or *iudex* (Mousourakis 2012). The Roman legal scholars could be compared to U.S. Supreme Court judges, the only difference being that their theories were not enforced by government force, but rather by their scholarly prestige and voluntary acceptance of their interpretations by the market participants. Hence, Roman law was not a “public good” at all. Yet, it gave us the most perfect and penetrating definitions of private property (in its many forms and shapes), private contracts, and the entire remaining universe of what has come to be known as “private law.”

Not only were Roman law and judicial processes ~~not public but~~ private goods; the enforcement of verdicts and contracts was also entirely private. The Romans did not have the institution of “police” at all. Simply, it was up to the plaintiff both to provide the presence of the defendant in court, as well as to enforce the verdict once it was reached, by using force, if necessary. Nobody had a “monopoly of violence” in the Roman Republic. For the most part, judicial proceedings amounted to a private arbitrage among the willing parties. Alternatively, the plaintiff would use force to drag the defendant to the courthouse. But, in neither case had government any role to play whatsoever. Riggsby (2010: 67), a leading scholar of Roman law, clearly concedes this, although with certain level of amazement:

At all times, but especially during the Republic, the Roman government lacked a police force and other bureaucracies that could check ordinary crime, much less control behavior that was less dangerous but still disfavored. Attempts have been made to find elements of the Roman government that might have taken on those functions, but the evidence has been lacking. No magistrate had a major responsibility in this area, nor did any have at his disposal the large number of dedicated employees that would have been required to police the city the size of Rome.

Even the military was private as well as the system of taxation, which depended mostly on voluntary contributions. Bertrand de Jouvenel ([1949] 1976): 101–102) in this way nicely summarizes the socio-political set up of the Roman Republic:

Right through her republican period Rome never knew the means of public coercion and had for force only the people themselves, who could at need answer the summons of the leaders of society. Only those decisions were possible on which there was a general agreement, and, in the absence of any state apparatus, their execution depended solely on the cooperation of the public. The army was but the people in arms, and the revenues but the sums gifted by the citizens, which could not have been raised except by voluntary subscriptions. There was not, to come down to the essential point, an administrative corps.

If we judge the Roman republican institutions and practices by the criteria Ostrom offers we would be hard pressed to avoid the conclusion that the Romans could not have known of private property or free-market competition at all, since they did not have any “public goods” to “sustain” them, or at least none of the sorts we have been discussing.

They were living in a pure anarchy, at least from the point of view of the conventional economic theory Ostrom uses to study what she calls the “commons.” We would have to rename the Roman contract and property law as “the system of governing the commons” were we to apply her “insights” to this historical epoch.

Let us analyze another canonical example of a universally accepted legal system that originated entirely as a private practice over the centuries and yet was perfectly capable of governing people’s interactions across many continents and centuries—the so-called Law Merchant. This law emerged from the remnants of Roman legal tradition during medieval times, and was created primarily as an international quasi-legal mechanism to regulate international business; to enforce contracts and obligations and adjudicate disputes among merchants irrespective of the place and country. This law was a codification of the existing customary practices of international traders; as Trakman (1980: 3), a medieval scholar, notes, “merchants have acquired their own ability to govern their affairs on the basis of good faith and reciprocity.”

The Law Merchant was not a form of legislation legislated by any national or local assembly, but rather an informal private code created

by an international community of merchants and used to govern their own affairs. It provided no legal penalty in national laws, and the principles of the law were just the formalization of the customary practices that made the law understandable and legitimate in the eyes of merchants across the Mediterranean region. From the very beginnings this private, customary quasi-law actually took precedence over “national” laws:

Merchants were obliged to observe their commitments. Good faith was the essence of the mercantile agreement. Reciprocity and the threat of business sanctions compelled performance. The ordinary undertakings of merchants were binding because they were “intended” to be binding, not because any law compelled such performance. Mandatory law was not to impede the self-sufficient pacts of merchants. (Trakman 1980: 7)

However, not only did the private, customary codes of merchants take precedence over local legislation, the procedures of enforcement were also private and free from any political interference. The merchant court did not follow the same rules of procedure devised and observed by the civil courts; theirs were much quicker, more informal (“from tide to tide”) because the needs of merchants required that business would not be interrupted by elaborate bureaucratic formalities. Here are just some of the specific features of the Law Merchant that were not accepted under any civil law statute of civilized countries:

Notarial attestation was usually dispensed with and the sign manual was accepted as sufficient documentary attestation for evidentiary purposes. Verbal evidence could contradict even a written document where the amount in dispute exceeded one hundred livres . . . In addition, verbal agreements were sufficient to found private partnership. No formal delivery was necessary in passing the property in a thing from the seller to the purchaser. The use of an agent did not require formal authorization. Nor the agent acquired any independent rights or liabilities on his own. (Trakman 1980: 14)

Further, the judges in these merchant courts were not lawyers but the merchants themselves! It was believed that attorneys lacked sufficient knowledge of the substance of trade disputes to be able to contribute. As well, they were inclined to take a too formalistic approach, which

could have jeopardized the business by prolonging the adjudications. As trade increased during medieval times, this merchant *imperio* within *imperii* also grew stronger and became much more entrenched. The merchant courts, which in the beginning were normal courts with special privileges and rules, became completely privatized and converted over time into the so-called Guild Courts, the bodies entirely governed by merchants themselves that regulated all trade-related issues in a community.¹³ They constituted a completely parallel legal system to the existing civil law of many countries:

At the height of the Law Merchant era, the Merchant Guild, together with the courts of “fairs” and “staples”, held substantial sway over matters of commerce. Guild or city members, citizens and foreign merchants, all received commercially oriented justice within the jurisdiction. Often this power was substantial, even to the total exclusion of the ordinary courts of the land . . . Under this commercial regime, the value of mandatory law, pre-emptory in nature and in effect, was rendered subservient to the business demands dictated by the trade environment. (Trakman 1980: 16)

The Law Merchant was a completely private system of law, developed by the merchants in the region of the Mediterranean, that took precedence over the local legislation and civil courts, and was enforced by the completely private, parallel legal apparatus composed of merchants themselves. If we follow Elinor Ostrom’s intellectual lead, this was a pure anarchy, with no “public goods” anywhere in sight to “sustain” the market, so this medieval international market simply could not exist. The Mediterranean merchants of the 12th or 13th centuries must have misunderstood their own enterprise as trade and commerce, unaware that what they were actually doing was just managing and governing the medieval “commercial commons.”¹⁴

But Ostrom did not have to go that far into the past nor around the world in order to discover similar phenomena: taking a quick look at some experiences in the American “wild West” in the 19th century would suffice to dispel her notion about the necessity of public goods to sustain free markets and private ownership. Throughout a prolonged period before the formation of the states in the West, their settlement and economic development were completely anarchic. The function of

protection and creating “public goods,” such as physical protection or guaranteeing property rights, was performed by private associations and agencies. For example, the land settlement in the West was plagued by occasional disputes over boundaries and ownership titles. The settlers themselves created so-called land clubs, completely private associations that successfully arbitrated in settling the disputes and regulating the relationships between the farmers. The land clubs provided not only the services of policing but also of court adjudication for a fee paid by the “insurers,” i.e. farmers. For everything that we now know, those private “governments” performed their protection services mostly without violence (Bogue 1963). There were no government “public goods” financed by tax extortion there.

Another example is even more telling. It covers exactly the kind of arrangements Ostrom discusses in her book: local farmers managing their common problems of excluding unwanted outsiders. The cattlemen in the West created associations to protect their pastures from the new intruders once the land became scarce. They hired so-called stock detectives, which is to say— professional gunmen—to defend their property against intruders, an American-style “governance of the commons” (Osgood 1929). Are we really to believe that ruggedly individualistic American frontiersmen of the mid-19th century misunderstood their businesses as private enterprises, instead of properly characterizing them as “governing the prairie commons?” For the most part, they did not amalgamate into partnerships, but rather constituted themselves into individual ownership formats, but yet, just like Ostrom’s fishermen, cattlemen, and farmers all over the world, they did not need any “public goods” or bureaucracy to protect their property rights.

In the case of the mining camps in California, Colorado, Idaho, and other Western territories, many permanent territorially organized private “governments” were established in the 19th century with their own “constitutions,” laws, and rules. The entire state of Colorado was divided up among numerous independent, private local authorities, and in many mining camps all over the West, the government lawyers or any other of its agents were not welcome at all. A statute of one of those territorial units, the Union Mining District, provided: “Resolved, that no lawyer be permitted to practice law in this district under penalty of not more than fifty, nor less than twenty lashes, and be forever

banished from this district" (Anderson and Hill 1979: 20). Instead of government lawyers and statist adjudicating procedures, the miners used their own private courts. Does that mean the California gold miners were actually somehow managing the "environmental commons" by creating those private institutions, instead of protecting their lives, liberty, and property? Hardly.

If we do not want to reach such an absurd conclusion, then Ostrom's entire argument about "commons" has to be rejected as untenable. The fact that some institutional arrangement does not perfectly fit the models of contemporary political science or neoclassical economics requiring "public goods" does not mean the arrangement is not one of private property rights. As we have seen, there had been some very important and long-lasting systems of private and contractual rights that were neither created nor enforced by governments. In order to assess the character of the institutional regime in question we should not look at the agency of enforcement but at the content and the logic of the arrangement itself. The fact that the Swiss villagers or Indonesian irrigators for the most part manage their contractual arrangements themselves without government's help does not tell us anything about the nature of their arrangements. For that we have to study their economic and legal content. This analysis clearly shows that they represent private property, not a "commons."

In her paper "Neither Market nor State," Ostrom (1994) formulates eight conditions that a governance system has to fulfill in order to efficiently control the problem of the commons. This only reinforces skepticism about the theoretical viability of the very concepts of commons and common pools resources, at least as she uses them. According to Ostrom (1994: 6–11), in order to function properly, the "commons" must be "governed" according to the following criteria:

1. Clearly defined boundaries,
2. Congruence between Appropriation and Provision Rules,
3. Collective Choice Arrangements,
4. Monitoring,
5. Graduated Sanctions,
6. Conflict Resolution mechanisms,
7. Minimal recognition of rights to organize, and
8. Nested Enterprises.

This again shows that Ostrom's understanding of the distinction between private, commons, and government property is at best tenuous. The main problem is that most, if not all of them, equally, or even

better, could be applied to private property rights. Take, for example, “clearly defined boundaries”: this describes perfectly the conditions for privately owned land. Is there an individual in the world who currently could own a piece of land with unknown boundaries? If not, what is the purpose of listing this condition as peculiar for “common-pool” resources?

The second condition is just as dubious: it represents a fancy formulation of the simple concept that those who reap the benefits of exploiting a resource should bear the costs. Rules have to be put in place to make sure this is the case. But, every private property regime does exactly the same thing: implements mechanisms to provide for the “congruence” of who gains and who pays. Moreover, this is one of the main defining features of a successful private property rights model in neo-institutional economics. Those rules may vary, depending upon different circumstances and the type of the organization at hand. A corporate firm would have a board of directors, use stock market prices, deal with threats of a “hostile” takeover, award stock options to the managers, and so on. Partnerships typically employ other internal mechanisms, such as unanimous decision making. How a group of 20 farmers are going to control joint exploitation of a meadow is from the economics point of view no different and no more interesting than how a group of 20 law firm partners are going to monitor and control the use of the firm’s jointly owned library or secretarial services.

The third condition also yields obfuscation: by “collective-choice arrangements,” Ostrom presumably means that the members of the group or partnership in question have to formulate the rules governing the operation of their enterprise together, consensually. But, this is equally true of any conventional private partnership or condominium. Ostrom merely uses political language in describing purely private economic relations among a group of individuals who together own and manage an economic resource. This gives the impression to the unwary, of whom there are altogether too many, that we are witnessing a political mechanism, but we are not. Otherwise, we can with equal justification claim that trading at the stock market represents a “collective choice arrangement.”

The next three conditions are even more peculiar: sanctions, monitoring, and conflict resolution. What kind of private property rights regime lacks any of these?

IV. Ostrom's Misguided Hayekianism

One of the curious elements in Ostrom's theory of commons "governance" is her appropriation of the Hayekian theory of decentralized knowledge used by local actors as more efficient than centralized government control. However, the way Ostrom uses this theory is very lax, offering a version of it that misrepresents the basic thrust of the theory at critical points. Most significantly, Hayek's (1945) theory was developed as a response to the socialists and reinforced the argument by von Mises (1922) against the possibility of economic calculation under socialism.¹⁵ It is part and parcel of the argument that private property rights and market prices are the only efficient mechanisms for coordinating economic activity. Ostrom's pop-Hayekianism, in sharp contrast, uses his argument for decentralization in order to "prove" that market prices and private property are inefficient and actually unnecessary in regulating certain areas of economic activity.

The intellectual battle that gave rise to Hayek's argument started with Mises's path-breaking paper "Economic Calculation in the Socialist Commonwealth," in which he showed that a socialist economy, devoid of private property in the factors of production, could not calculate market prices and hence would be unable to rationally economize on the use of scarce resources (Mises [1933] 1975). Shifting the emphasis from the ethical and legal to the economic and calculational aspects of private property, Mises had shown that private property is an indispensable instrument for economizing resources, which is necessarily based on meaningful market prices. In their absence, as he said, the economic activity would have been a "leap in the dark" (Mises [1922] 1951: 122).

Socialists were struck by this critique. They had never thought of the calculational problem and the coordinating role played by private property. Their attempts to salvage the doctrine from the Misesian challenge included the mathematical reformulations of their theory, and an attempt to improve the ideas of market socialism that would combine centralized allocation with decentralized management.¹⁶

Hayek's contribution in this debate was to analyze the problem of socialism in terms of centralization of knowledge. In a sense he reformulated the Misesian argument in a more epistemological and psychological manner. It is questionable to what extent this revision was

justified and even to what extent it was Misesian at all,¹⁷ but the important thing to bear in mind is that Hayek developed a theory he thought could better articulate Mises's argument for markets and against socialism. Hayek is quite explicit about that: his emphasis on decentralized knowledge and his critique of concentration of power in the hands of central planners is not an end in itself. Hayek argues that the free market is efficient because it allows us, via market prices, to utilize significantly more knowledge than anyone in isolation could have at his disposal. As he says in the paper "Competition as a Discovery Procedure," the function of market competition is to *discover* the most useful allocation of resources and patterns of investment. Here is one of the crucial examples of the decentralized use of knowledge that Hayek (1945: 525) gives to explain what kind of knowledge the "man on the spot" has to have and why:

There is hardly anything that happens anywhere in the world that might not have an effect on the decision he [the entrepreneur] ought to make. But he need not know of these events as such, nor of all their effects. It does not matter for him why at the particular moment more screws of one size than of another are wanted, why paper bags are more readily available than canvas bags, or why skilled labor, or particular machine tools, have for the moment become more difficult to obtain. All that is significant for him is how much more or less difficult to procure they have become compared with other things with which he is also concerned, or how much more or less urgently wanted are the alternative things he produces or uses. It is always a question of the relative importance of the particular things with which he is concerned, and the causes which alter their relative importance are of no interest to him beyond the effect on those concrete things of his own environment.

Hayek uses the concept of decentralized knowledge to develop a theory of production process in the capitalist economy—namely, to explain how numerous changes in local circumstances affect the relative prices of various productive factors and how and why the detailed technological knowledge of all these changes is neither possible nor necessary for a successful price calculation and allocation of the factors to their alternative uses. This theory allows Hayek to downplay the importance of improvements in technological and scientific knowledge for economic coordination and to emphasize the relatively much more

important role of tacit knowledge of local circumstances of time and place.

However, note the critical element here: this “tacit” knowledge is relevant only insofar as it gives rise to market prices that serve to coordinate and rationalize the distribution of productive factors. The local character of knowledge is irrelevant *per se*; what is really crucial is that this information accumulates the crystalized information through the myriad of individual interactions across time and space into the market price signals that serve to guide the investment and production decisions by the entrepreneurs, capitalists, and workers. It is part and parcel of the theory of developed *capitalist production*.

However, Ostrom transforms all of this into a free-floating sociological theory, completely divorced from economic analysis. What she got from Hayek’s theory can best be summarized as the notion that the local communities know better what is good for them than some distant government or corporate bureaucrat. At least half of her argument goes directly against Hayek’s theory. For Hayek, tacit knowledge and decentralization were the preconditions for efficient market functioning. For Ostrom, the very use of local knowledge shows that the market is *inefficient*. Ostrom believes that local knowledge is not a basis for a large-scale process of market production and coordination but rather an end in itself: local people know “their local stuff” and they will take care of their problems all on their own. They do not need any larger cooperation. The introduction of market prices will actually jeopardize their efforts, if anything.

IV. Conclusion

Ostrom is a brilliant scholar. Her research is meticulous. She intimately and interestingly describes important economic and legal phenomena in several places around the world. But her contribution is fatally flawed by failure to understand basic concepts of property rights.

Have we been spending a lot of time and space with our incessant piling up of evidence in support of this contention of ours? Yes, we confess, we have been doing just that. Is this practice of ours justified? Were Ostrom some run-of-the-mill scholar who made this error, it would not be defensible. But she won the Nobel Prize in economics.

She was the very first woman to have done so. She had no degree in economics, but rather in political science. Even if those were the only facts of the case, we would still not be warranted in dragging her through the intellectual mud as we have done, at least not so assiduously. What really justifies our method in regard to her is that, seemingly, the entire professions of economics, public policy, political science, and social science in general have been taken in by her siren song of the commons. If we are to correct the record, and rescue the concept of the tragedy of the commons from her pillaging of it, we can do no less than offer a page-by-page, paragraph-by-paragraph, and, in some cases, line-by-line refutation of her errors. This is precisely what we have done.

Notes

1. A particularly egregious example of this slavish unthinking hagiographic devotion is Boettke (2009). This comes from a scholar who really should have known better, since he usually favors private property rights and Austrian economics. Ostrom singles out Smith (1981) for special criticism, since Smith supports the free-market doctrine of the “tragedy of the commons,” while Ostrom rejects it. One would have thought that Boettke, otherwise a supporter of free enterprise, would have sided with Smith, not Ostrom; in the event, we are sadly disappointed.

2. The only exception is a critical review of Ostrom (1990) by Block (2011).

3. Ellickson (1994) studies one such case. Pinker (2011) maintains that this example is unimportant. For a critique of the latter, see Block (2013).

4. On privatizations in Canada, see Ohashi (1980) and Ohashi et al. (1980). A particularly interesting example is the Eastern European privatization after the collapse of communism in 1989. Many countries employed the models of privatization that included a transfer of ownership from the government to multiple persons. For example, in Serbia there had been two different laws governing privatization: first in the mid-1990s the former government ownership was transferred to the employees and the directors of the firms. Later on, since 2000, new legislation was passed according to which 70 percent of the ownership was sold to a single buyer on a public auction, while the remaining 30 percent of the shares were given to the employees. Was this a privatization according to Ostrom? No. For they divided a single resource, a firm, among many people, sometimes dozens, scores. If she stuck to her principles, she would have to characterize the result as a “commons.”

5. An analogy is the Herfindahl Index, or the four (or eight) firm concentration ratio utilized by neoclassical economics (Bork 1978; Brozen 1982; Posner

(2001), versus the Austrian view (Rothbard 1962; Block 1994) that eschews mere numbers of competitors in favor of the criterion of legal entry. Another difference is the end state views of Rawls (1971), which engages in the numerical counting of shares of income or wealth, in contrast to the process theory of Nozick (1973).

6. This is a right that can be exercised by one or more persons, depending upon the form of ownership

7. Two or more hands, it matters not one bit.

8. Are the present authors merely having a verbal dispute with Ostrom? We think not. We claim she is making a substantive error, not merely a definitional one.

9. Holcombe (1994, 2005) makes an identical error. For a critique, see Block (2010).

10. If the present authors tried to sneak our own cattle (we do not have any now, but we could purchase some) onto this “commons,” which is presumably open to all and sundry, we might even succeed for a short time while the actual owners (this means it is *not* a commons where all are welcome) were doubled up in paroxysms of laughter at our temerity and idiocy. But, as soon as they recovered from their stomach cramps (likely, they would not have had as good a belly laugh like that in years), we and our cattle would be summarily booted out of this commons. Well, maybe not. Probably, they would tar and feather us, and keep our newly bought cattle for themselves as a penalty for our trespass.

11. The present authors of course do not deny that there is such a thing as a commons: not private owned, not controlled by government, where no one is precluded from entry. For example, the middle of the ocean.

12. For a critique of the “public goods” market failure argument, see Barnett and Block (2007, 2009); Block (1983, 2000, 2003); Cowen (1988); De Jasay (1989); Holcombe (1997); Hoppe (1989); Hummel (1990); Osterfeld (1989); Pasour (1981); Rothbard (1985, 1997); Schmitz (1991); Sechrest (2003, 2004a, 2004b; 2007); Tinsley (1999). Rothbard’s (1997: 178) *reductio ad absurdum* of public goods is as follows: “A and B often benefit, it is held, if they can force C into doing something. . . . [A]ny argument proclaiming the right and goodness of, say, three neighbors, who yearn to form a string quartet, forcing a fourth neighbor at bayonet point to learn and play the viola, is hardly deserving of sober comment.”

13. The present authors do not support the restrictive elements of the guild system. We are here concerned only with their functioning as private courts.

14. Other examples of functioning anarchist societies may be found here: Benson (1990); Clay (1997); Davies (2002); Friedman (1979, 2006); Leeson (2007); Long (1994); Peden (1977); Powell, Ford, and Nowrasteh (2008); Stringham (2003); Solvason (1992); Thompson (2006).

15. However, there is a de-homogenization literature that emphasizes not the compatibility of the views of these two Austrian economist, but rather their

divergences: Block and Garschina (1996); Ebeling (1992); Herbener (1991); Hoppe (1996); Knott (2012); Rothbard (1991, 1992); Salerno (1990a; 1990b, 1991, 1992, 1993, 1995); Stalebrink (2004); for a critique, see Kirzner (1996).

16. See on this Lange (1936, 1937), Lange and Taylor (1936, 1938), and Lerner (1934); these socialist critics of Mises were so impressed with the importance of his critique that they actually proposed building a statue of him, and giving it the place of honor in their future socialist planning hall. See on this Hulsmann (2007) and Rothbard (1991).

17. See the Misesian critiques of Hayek in endnote 16, *supra*.

References

- Anderson, Terry, and P. J. Hill. (1979). "An American Experiment in Anarcho-Capitalism: The *Not So Wild, Wild West*." *Journal of Libertarian Studies* 3: 9–29. http://mises.org/journals/jls/3_1/3_1_2.pdf
- Barnett, William, and Walter E. Block. (2009). "Coase and Bertrand on Lighthouses." *Public Choice*; 140(1–2): 1–13. <http://dx.doi.org/10.1007/s11127-008-9375-x>
- . (2007). "Coase and Van Zandt on Lighthouses." *Public Finance Review* 35(6): 710–733.
- Benson, Bruce L. (1990). *The Enterprise of Law, Justice Without the State*. San Francisco, CA: Pacific Research Institute for Public Policy.
- Block, Walter, E. (1983). "Public Goods and Externalities: The Case of Roads." *Journal of Libertarian Studies: An Interdisciplinary Review* VII (1): 1–34. http://www.mises.org/journals/jls/7_1/7_1_1.pdf
- . (1994). "Total Repeal of Anti-Trust Legislation: A Critique of Bork, Brozen and Posner." *Review of Austrian Economics* 8(1): 35–70. http://www.mises.org/journals/rae/pdf/r81_3.pdf http://www.mises.org/journals/rae/pdf/rae8_1_3.pdf
- . (2000). "Word Watch." April 20. <http://www.mises.org/fullstory.asp?control=414&FS=Word+Watch>
- . (2003). "National Defense and the Theory of Externalities, Public Goods and Clubs." In *The Myth of National Defense: Essays on the Theory and History of Security Production*. Ed. Hans-Hermann Hoppe, pp. 301–334. Auburn, AL: Mises Institute. <http://www.mises.org/etexts/defensemyth.pdf>
- . (2010). "Libertarianism is Unique; It Belongs Neither to the Right nor the Left: A Critique of the Views of Long, Holcombe, and Baden on the Left, Hoppe, Feser and Paul on the Right." *Journal of Libertarian Studies* 22: 127–70. http://mises.org/journals/jls/22_1/22_1_8.pdf
- . (2011). "Review Essay of Ostrom, Elinor." 1990. *Governing the Commons: The Evolution of Institutions for Collective Action*. Cambridge, UK and New York: Cambridge University Press." *Libertarian Papers* 3: Art. 21.

- [http://libertarianpapers.org/\(2011/21-block-review-of-ostroms-governing-the-commons/](http://libertarianpapers.org/(2011/21-block-review-of-ostroms-governing-the-commons/)
- . (2013). “Book Review Essay of Pinker, Steven. 2011. *The Better Angels of Our Nature: Why Violence Has Declined*.” *Management Education Science Technology Journal*. http://www.mest.meste.org/MEST_Najava_clanaka.html
- Block, Walter, and Kenneth M. Garschina. (1996). “Hayek, Business Cycles and Fractional Reserve Banking: Continuing the De-Homogenization Process.” *Review of Austrian Economics* 9(1): 77–94. http://www.mises.org/journals/rae/pdf/rae9_1_3.pdf
- Boettke, Peter. (2009). “Why Those Who Value Liberty Should Rejoice: Elinor Ostrom’s Nobel Prize.” *Freeman*, November 19. http://www.fee.org/the_freeman/detail/why-those-who-value-liberty-should-rejoice-elinor-ostroms-nobel-prize#axzz2OEGFzUdX http://www.fee.org/the_freeman/detail/why-those-who-value-liberty-should-rejoice-elinor-ostroms-nobel-prize#ixzz2OEGIgrF8
- Bogue, Allan. (1963). “The Iowa Claim Clubs: Symbols and Substance.” In *The Public Lands*. Ed. V. Carstensen. Madison: University of Wisconsin Press.
- Bork, Robert H. (1978). *The Antitrust Paradox: A Policy at War with Itself*. New York: Basic Books.
- Brozen, Yale. (1982). *Concentration, Mergers, and Public Policy*. New York: Macmillan.
- Clay, Karen. (1997). “Trade Without Law: Private Order Institutions in Mexican California.” *Journal of Law, Economics and Organizations* 13(1): 202–231. <http://ideas.repec.org/a/oup/jleorg/v13y1997i1p202-31.html>
- Cowen, Tyler, ed. (1988). *The Theory of Market Failure: A Critical Examination*. Fairfax, VA: George Mason University Press. [http://www.amazon.com/Theory-Market-Failure-Critical-Examination/dp/0913969133/ref=sr_1_1?ie=UTF8&s=books&qid=1\(200191409&sr=1-1](http://www.amazon.com/Theory-Market-Failure-Critical-Examination/dp/0913969133/ref=sr_1_1?ie=UTF8&s=books&qid=1(200191409&sr=1-1)
- Davies, Stephen. (2002). “The Private Provision of Police During the Eighteenth and Nineteenth Centuries.” In *The Voluntary City: Choice, Community and Civil Society*. Ed. Beito, Gordon, and Tabarrok, pp. 151–181. Oakland, CA: Independent Institute.
- De Jasay, Anthony. (1989). *Social Contract, Free Ride: A Study of the Public Goods Problem*. Oxford University Press. [http://www.amazon.com/Social-Contract-Free-Ride-Paperbacks/dp/0198239122/ref=sr_1_1?ie=UTF8&s=books&qid=1\(200191531&sr=1-1](http://www.amazon.com/Social-Contract-Free-Ride-Paperbacks/dp/0198239122/ref=sr_1_1?ie=UTF8&s=books&qid=1(200191531&sr=1-1)
- De Jouvenel, Bertrand. ([1949] 1976). *On Power: Its Nature and the History of its Growth*. Boston: Beacon Press. <https://archive.org/details/onpoweritsnature00injouv>
- Ebeling, Richard. (1992). “Introduction.” In *The Global Failure of Socialism*. Ed. Richard Ebeling, pp. 6–8. Hillsdale, MI: Hillsdale College Press.

- Ellickson, Robert C. (1994). *Order Without Law: How Neighbors Settle Disputes*. Boston: Harvard University Press.
- Friedman, David. (1979). "Private Creation and Enforcement of Law—A Historical Case." *Journal of Legal Studies* 8: 399–415. <http://www.davidfriedman.com/Academic/Iceland/Iceland.html>
- . (2006). "From Imperial China to Cyberspace: Contracting Without the State." *Journal of Law, Economics, and Policy* 1: 349–370.
- Hardin, Garrett. (1968). "Tragedy of the Commons." *Science* 162: 1243–1248.
- Hayek, Friedrich A. (1945). "The Use of Knowledge in Society." *American Economic Review* 35(4): 519–530.
- Herbener, Jeffrey M. (1991). "Ludwig von Mises and the Austrian School of Economics." *Review of Austrian Economics* 5(2): 33–50. http://www.mises.org/journals/rae/pdf/rae5_2_2.pdf
- Holcombe, Randall G. (1994). *Economic Foundations of Government*. New York: New York University Press.
- . (1997). "A Theory of the Theory of Public Goods." *Review of Austrian Economics* 10(1): 1–10. http://www.mises.org/journals/rae/pdf/RAE10_1_1.pdf
- . (2005). "Common Property in Anarcho-Capitalism." *Journal of Libertarian Studies* 19(2): 3–29. http://www.mises.org/journals/jls/19_2/19_2_1.pdf
- Hoppe, Hans-Hermann. (1989). "Fallacies of the Public Goods Theory and the Production of Security." *The Journal of Libertarian Studies* IX(1): 27–46. http://www.mises.org/journals/jls/9_1/9_1_2.pdf
- . (1996). "Socialism: A Property or Knowledge Problem?" *Review of Austrian Economics* 9(1): 147–154. http://mises.org/journals/rae/pdf/RAE9_1_13.pdf <http://dieoff.com/page95.htm>
- Hulsmann, Jorg Guido. (2007). *The Last Knight of Liberalism*. Auburn, AL: Mises Institute. <http://www.mises.org/books/lastknight.pdf>
- Hummel, Jeffrey. (1990). "National Goods vs. Public Goods: Defense, Disarmament and Free Riders." *Review of Austrian Economics* IV(1): 88–122. http://www.mises.org/journals/rae/pdf/rae4_1_4.pdf
- Kirzner, Israel M. (1996). "Reflections on the Misesian Legacy in Economics." *Review of Austrian Economics* 9(2): 143–154. http://mises.org/journals/rae/pdf/R92_8.pdf
- Knott, Adam. (2012). "Hayek and Praxeology." *Mises Daily*, November 13. <http://www.mises.org/daily/6248/Hayek-and-Praxeology>
- Lange, Oskar. (1936). "On the Economic Theory of Socialism: Part I." *Review of Economic Studies* 4(1): 53–71.
- . (1937). "On the Economic Theory of Socialism: Part II." *Review of Economic Studies* 4(2): 123–142.
- Lange, Oscar, and Fred M. Taylor. (1938). *On the Economic Theory of Socialism*. Minneapolis: University of Minnesota Press.

- Leeson, P. T. (2007). "Better Off Stateless: Somalia Before and After Government Collapse." *Journal of Comparative Economics* 35(4): 689–710.
- Lerner, Abba P. (1934). "Economic Theory and Socialist Economy." *Review of Economic Studies* 2(1): 51–61.
- Long, Roderick T. (1994). "The Decline and Fall of Private Law in Iceland." *Formulations* 1(3). <http://freenation.org/a/f1311.html>
- Mises, Ludwig von. ([1922] 1951). *Socialism: An Economic and Sociological Analysis*. Trans. J. Kahane. New Haven, CT: Yale University Press.
- . ([1933] 1975). "Economic Calculation in the Socialist Commonwealth." In *Collectivist Economic Planning*. Ed. F. A. Hayek. Clifton, NJ: Kelley
- Mousourakis, George. (2012). *Fundamentals of Roman Private Law*. Heidelberg: Springer-Verlag.
- Nozick, Robert. (1974). *Anarchy, State and Utopia*. New York: Basic Books.
- Ohashi, T. M. (1980). *Privatization, Theory and Practice: Distributing Shares in Private and Public Enterprise*. Vancouver, BC: Fraser Institute.
- Ohashi, T. M., T. P. Roth, Z. A. Spindler, M. L. McMillan, and K. H. Norrie. (1980). *Privatization Theory & Practice*. Vancouver, BC: Fraser Institute.
- Osgood, Ernst Staples. (1929). *The Day of the Cattlemen*. Minneapolis, MN: University of Minneapolis Press.
- Osterfeld, David. (1989). "Anarchism and the Public Goods Issue: Law, Courts and the Police." *Journal of Libertarian Studies* 9(1): 47–68. http://www.mises.org/journals/jls/9_1/9_1_3.pdf
- Ostrom, Elinor. (1990). *Governing the Commons*. Cambridge: Cambridge University Press.
- . (1994). "Neither Market nor State: Governance of the Common Pool Resources in the 21st century." *Lecture Series no. 2*. Oakland, CA: International Food Policy Research Institute.
- Pasour, Jr., E. C. (1981). "The Free Rider as a Basis for Government Intervention." *Journal of Libertarian Studies* 5(4): 453–464. http://www.mises.org/journals/jls/5_4/5_4_6.pdf
- Peden, Joseph R. (1977). "Property Rights in Celtic Irish Law." *Journal of Libertarian Studies* 1(2): 81–95. http://www.mises.org/journals/jls/1_2/1_2_1.pdf
- Pennington, M. (2001). "Environmental Markets Versus Environmental Deliberation: A Hayekian Critique of Green Political Economy." *New Political Economy* 6(2):171–190.
- Pinker, Steven. (2011). *The Better Angels of Our Nature: Why Violence Has Declined*. New York: Viking.
- Posner, Richard A. (2001). *Antitrust Law*, 2nd Edition. Chicago: University of Chicago Press.
- Powell, Benjamin, Ryan Ford, and Alex Nowrasteh. (2008). "Somalia After State Collapse: Chaos or Improvement." *Journal of Economic Behavior & Organization* 67(3–4): 657–670.

- Rawls, John. (1971). *A Theory of Justice*. Cambridge: Harvard University Press.
- Riggsby, Andrew M. (2010). *Roman Law and the Legal World of the Romans*. Cambridge: Cambridge University Press.
- Rothbard, Murray N. ([1962] 2004). *Man, Economy and State*, Scholar's Edition. Auburn AL: Ludwig von Mises Institute. <http://www.mises.org/rothbard/mes.asp>
- . (1990b). "Postscript: Why a Socialist Economy is Impossible." In *Economic Calculation in the Socialist Commonwealth*. Ed. Ludwig von Mises, pp. 51–71. Auburn AL: Praxeology Press.
- . (1991). "The End of Socialism and the Calculation Debate Revisited." *Review of Austrian Economics* 5(2): 51–76. Reprinted (1997) in *The Logic of Action One: Method, Money, and the Austrian School*. Ed. Murray N. Rothbard, pp. 408–437. Glos, UK: Elgar. http://www.mises.org/journals/rae/pdf/rae5_2_3.pdf
- . (1991). "Commentary: The Concept of Coordination in Austrian Macroeconomics." In *Austrian Economics, Perspectives on the Past and Prospects for the Future. Champions of Freedom Series. Vol. 17*. Ed. Richard M. Ebeling. Hillsdale, MI.: Hillsdale College Press.
- . (1992). "The Present State of Austrian Economics." Working Paper from the Ludwig von Mises Institute, November. Reprinted (1997) in *The Logic of Action One: Method, Money, and the Austrian School*. Ed. Murray N. Rothbard, pp. 111–172. Glos, UK: Elgar. Reprinted in *Journal des Economistes et des Etudes Humaines* 6(1): 43–89.
- . (1993). "Mises and Hayek Dehomogenized." *Review of Austrian Economics* 6(2): 113–146. http://www.mises.org/journals/rae/pdf/rae6_2_5.pdf
- . (1994). "Reply to Leland B. Yeager on 'Mises and Hayek on Calculation and Knowledge.'" *Review of Austrian Economics* 7(2): 111–125.
- . (1995). "A Final Word: Calculation, Knowledge and Appraisalment." *Review of Austrian Economics* 9(1): 141–142. http://www.mises.org/journals/rae/pdf/rae9_1_8.pdf
- . (1997). *The Logic of Action: Applications and Criticism from the Austrian School*, Vol.II. Cheltenham, UK: Edward Elgar.
- Salerno, Joseph T. (1990a). "Ludwig von Mises as Social Rationalist." *Review of Austrian Economics* 4: 26–54. http://www.mises.org/journals/rae/pdf/rae4_1_2.pdf
- Schmidtz, David. (1991). *The Limits of Government: An Essay on the Public Goods Argument*. Boulder, CO: Westview Press
- Sechrest, Larry. (2003). "Privateering and National Defense: Naval Warfare for Private Profit." In *The Myth of National Defense: Essays on the Theory and History of Security Production*. Ed. Hans-Hermann Hoppe, pp. 239–274. Auburn, AL: Mises Institute.

- . (2004a). “Public Goods and Private Solutions in Maritime History.” *Quarterly Journal of Austrian Economics* 7(2): 3–27. http://www.mises.org/journals/qjae/pdf/qjae7_2_1.pdf
- . (2004b). “Private Provision of Public Goods: Theoretical Issues and Some Examples from Maritime History.” *ICFAI Journal of Public Finance* 2(3): 45–73.
- . (2007). “Privately Funded and Built U.S. Warships in the Quasi-War of 1797–1801.” *Independent Review* 12(1): 101–113.
- Smith, Robert J. (1981). “Resolving the Tragedy of the Commons by Creating Private Property Rights in Wildlife.” *Cato Journal* 1 (Fall): 439–468.
- Solvason, B., and T. Runolfsson. (1992). “Ordered Anarchy: Evolution of the Decentralized Legal Order in the Icelandic Commonwealth.” *Icelandic Economic Papers* #17.
- Stalebrink, Odd J. (2004). “The Hayek and Mises Controversy: Bridging Differences.” *Quarterly Journal of Austrian Economics* 7(1): 27–38. http://mises.org/journals/qjae/pdf/qjae7_1_3.pdf
- Stringham, Edward. (2003). “The Extralegal Development of Securities Trading in Seventeenth Century Amsterdam.” *Quarterly Review of Economics and Finance* 43(2): 32–344.
- Thompson, Thomas J. (2006). “An Ancient Stateless Civilization: Bronze Age India and the State in History,” *The Independent Review*. Vol. 10 pp. 365–384.
- Tinsley, Patrick. (1998–1999). “With Liberty and Justice for All: A Case for Private Police.” *Journal of Libertarian Studies* 14(1): 95–100. http://www.mises.org/journals/jls/14_1/14_1_5.pdf
- Trakman, Leon (1980). “The Evolution of the Law Merchant: Our Commercial Heritage.” *Journal of Maritime Law and Commerce* 12(1): 1–24.

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