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Naming the Tragedy

*Eric T. Freyfogle**

Since its appearance in 1968, Garret Hardin's short article in *Science*, "The Tragedy of the Commons," has become an especially handy source for scholars to cite in support of an array of claims about nature and why we misuse it.¹ In his article, Hardin drew attention to the rising human population and offered an explanation why, absent intervention, it would keep rising, well beyond the planet's carrying capacity and even when it brought suffering and degradation.² To illustrate his explanatory theory Hardin included a tale about a grazing pasture that suffered tragic decline because of overuse.³ It was this short, fictional narrative that drew great interest and turned Hardin's article into a classic.

In Hardin's story, individual cattle grazers were free to use the pasture as they liked. They could add more livestock at any time, and do so even when the extra animals caused overgrazing and degradation. An individual grazer had an incentive to act this way, to add an extra head, because the forage eaten by the animal benefited the grazer. The additional animal brought net harm due to the overgrazing, particularly as other grazers followed suit. But that harm was spread among all grazers while the benefits of the extra animal went to the owner alone. Each grazer thus had an incentive to act in ways that brought tragic consequences to the landscape and its users. For the "rational" grazer, Hardin contended, adding more animals was "the only sensible course."⁴ And it was individual freedom that made it all possible. As Hardin famously contended, "[r]uin is the destination toward which all men rush, each pursuing his own best interest in a society that believes in the freedom of the commons."⁵

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1. Garret Hardin, *The Tragedy of the Commons*, 162 *Sci.* 1243 (1968). A hint of the utility of the article can be gained by a search for citations to it in the Westlaw database; a search on December 11, 2014, turned up 1,855 items.
2. *Id.* at 1243-44, 1246.
3. *Id.* at 1244.
4. *Id.*
5. *Id.*

Hardin described his grazing region as a commons, and it was, in the sense that many people shared its use.⁶ More precisely the region was an open-access commons in that no norms or rules limited the ability of any grazer to graze more animals at will.⁷ The outcome of this freedom, Hardin asserted, was tragic in that it led inexorably to misuse of the pasture and harm to the grazers themselves. Hardin did not pause to define good pasture use; he did not, that is, explain how he would distinguish between the legitimate use of a grazing region and the misuse of it. His was a simple tale, with no need to get specific. At some point, overgrazing reduced the region's forage productivity, an outcome he deemed bad.

Hardin's conclusion was that this kind of selfish freedom needed to disappear. In some way lawmakers needed to limit it through coercive means. As a democrat, Hardin believed that binding limits should be "mutually agreed upon by the majority of the people affected," not imposed by autocrats.⁸ He thus phrased his solution as mutual coercion, mutually agreed upon. Coercion could take the form of something like governmental regulation. It could also come, in the case of the grazing tragedy, through the division of the pasture into privately owned shares.⁹ If the latter was done, the ill effects of overgrazing by any individual grazer would be felt by the grazer alone, not shared by others, thus aligning the costs and benefits of overgrazing and leading, presumably, to less or no overuse. Hardin presented these remedial options as variations on the theme of mutual coercion, but many readers would treat them as more distinct—a public ownership-regulatory option and a private-property option.¹⁰

Over the years Hardin's tale has become something of a Rorschach test, akin to the personality test developed by Swiss

6. *Id.* (describing his fictional pasture as one "open to all").

7. A classic discussion is Siegfried V. Ciriacy-Wantrup & Richard C. Bishop, "Common Property" as a Concept in Natural Resource Policy, 15 NAT. RESOURCES J. 713 (1975).

8. Hardin, *supra* note 1, at 1247. Hardin emphasized this point to counter any implication that "coercion implic[d] arbitrary decisions of distant and irresponsible bureaucrats . . ." *Id.*

9. *Id.* at 1245 ("The tragedy of the commons as a food basket is averted by private property, or something formally like it.").

10. *Id.* at 1247. Taken as a whole, Hardin's article treats privatization as a form of mutual coercion, as it is. But in early parts of his article, before introducing the idea of mutual coercion, he presents private property as a solution without describing it in those terms, thus facilitating the view that they are different options. *Id.* at 1245 ("The tragedy of the commons as a food basket is averted by private property, or something formally like it."); *id.* (To avert tragedy of commons in National Parks "[w]e might sell them off as private property").

psychologist Hermann Rorschach in which patients are shown inkblots and asked to describe what they see. In much the same way, readers of Hardin's tale can come away with widely varied interpretations. What seems important in this story? What truths are displayed? And what omissions or errors might be embedded in it and in Hardin's explanation?

The possible answers to these questions are many, and very likely turn mostly on traits that a reader brings to the narrative. Based on answers to such questions one might well discern the political leanings of a reader and probably more: his ecological understandings, his thoughts about government pro and con, the value he places in standard neoclassical economics, and his views of private ownership and its benefits. Indeed, one might guess that answers from readers could be spread out along a graduated spectrum. Does the tale sum up our environmental predicament? Is it proof of the value of private property and support for more of it? Is it proof of the ill effects of allowing people to act free of control? And might it contain still other lessons about human nature, economics, and our planetary plight?

Hardin's tale is so malleable in part because Hardin presented it simply and most readers have reacted with equal simplicity. The story, though, can also be teased apart more carefully, with particular regard for embedded assumptions and for issues that, though raised implicitly, were not flagged or probed by Hardin himself. The story, to be sure, has to do with ecological decline. But it takes digging to get to the bottom of this story, both to figure out why the degradation takes place and what steps the grazers (or others) would need to take to avoid the decline. On both points—the root causes of degradation and the steps needed to avert it—Hardin's story is radically incomplete. To fill it out is to gain considerable insight both on the causes of today's environmental ills and on the reasons why modern society has such trouble coming to grips with them.

I. THREE BASICS

Readers of Hardin's tale of all political and cultural stripes ought to find agreement on three basic claims about the tragedy. It is useful to begin with them before moving on to points that are less clear.

For starters, the degradation of Hardin's grazing region was caused by the grazers themselves. The cattle, to be sure, ate the

plants and fouled the waterways. But the grazers introduced the animals and controlled them. People misused the region, not bovines. It is an essential point and foundational. In this setting and many others, we gain clarity by pointing the finger at the people causing the harm, as Hardin did, not at the harm itself.

Second, few readers are likely to think grazing is always ecologically bad, even if they object to treating cattle this way. That is, some level of grazing is acceptable in some places. Certain grazing entails the legitimate use of nature by people, while grazing at a higher level or in the wrong place crosses the line and becomes abusive. To figure out whether grazing is excessive thus requires a line between legitimate use and abuse. All grazing brings changes to a landscape so this line-drawing in effect distinguishes between changes made to nature that are acceptable or ameliorative and changes that instead are unwise, immoral or otherwise misdirected. This line-drawing is very much a normative task, even as it makes extensive use of scientific facts. It is up to people to decide, based on their values and normative preferences, where the line should lie. Nature does not draw it; it merely (and importantly) reacts to what humans do. Nor can science alone draw it even as science might tell us the consequences of alternative grazing options.

The third basic lesson embedded in Hardin's tale is that the grazers collectively would be better off if they got together and came up with coercive rules limiting their individual uses of the commons. Pretty much all readers can see that the grazers ought to do this, and that they likely would do it given adequate opportunity. By (important) implication, the "rational" decision that a grazer might sensibly make acting as an individual—to add more cattle—would likely differ from the equally rational decision the same individual would make when joining with other grazers to set up a governance regime. Working with others the individual could vote to impose limits that would keep him from doing exactly what he would choose to do as an autonomous individual.

We need to put the last point plainly: the decision a grazer makes as an individual autonomous market actor could differ radically from the decision he would likely make in his role as citizen-lawmaker. Both decisions reflect what the grazer wants. Both also make good sense in simple economic terms; they are, in that regard, intellectually coherent. In short, the preferences of grazers—the preferences of people generally—vary based on the role they play.

This divergence has long been known as the citizen-consumer dichotomy.¹¹ It ought to be, but for the most part is not, central to nearly all talk about our environmental plight. Similarly, Hardin's tale ought to stand, though it rarely does, as the poster case refuting the common claim that people show their true wants when they spend their own money as individuals, not when they tell pollsters how they would vote.

II. WHAT IS A COMMONS?

One hornet's nest that Hardin stirred up arose from his use of the term *commons*. In the case of population growth, he meant the term to refer to the entire planet, which was a commons from the perspective of people because they all shared it (albeit in highly unequal ways).¹² That use of the term drew little objection. What became contentious was his use of the term *commons* to describe the grazing region. The pasture was also a commons, but it was one that scholars would term an open-access commons, one that grazers could use free of any norms or limits.¹³ There are such commons in the world—the atmosphere for the most part, and many fisheries.¹⁴ But long-time grazing commons are typically places where users are embedded in collective governance regimes with rights prescribed by norms or other rules. Such a place is also termed a commons. As scholars pointed out, a well-managed commons of this type would produce not tragedy but something more like its opposite.¹⁵ It could

11. The distinction is explained and applied in MARK SGOFF, *THE ECONOMY OF THE EARTH: PHILOSOPHY, LAW, AND THE ENVIRONMENT* 7–8, 51–55, 65–67 (1988). Earlier considerations, many in the field of welfare economics, include Stephen Marglin, *The Social Rate of Discount and the Optimal Rate of Investment*, 77 Q. J. ECON. 95 (1963).

12. Hardin, *supra* note 1, at 1243 (“A finite world can support only a finite population . . .”).

13. The term “commons” is explained in Ciriacy-Wantrup & Bishop, *supra* note 7.

14. On fisheries, see Jonathan H. Adler & Nathaniel Stewart, *Learning How to Fish: Catch Shares and the Future of Fisheries Conservation*, 31 UCLA J. ENVTL. L. & POL'Y 150 (2013). In the case of the atmosphere, Mary Christina Wood has urged that it be embraced legally as a public trust asset with state duties to protect it in the public interest. Mary Christina Wood, *Law and Climate Change: Government's Atmospheric Trust Responsibility*, 38 ENVTL. L. REP. NEWS & ANALYSIS 10652 (2008). Hardin viewed the atmosphere in the same way, realized that it could not be divided into private shares, and urged that mutual coercion be applied to protect it. Hardin, *supra* note 1, at 1245, 1247.

15. Leading studies of commons that have been well-managed, sometimes for centuries, include ELINOR OSTROM, *GOVERNING THE COMMONS: THE EVOLUTION OF INSTITUTIONS FOR COLLECTIVE ACTION* (1990) and Margaret A. McKean, *Success on the Commons: A Comparative Examination of Institutions for Common Property Resources Management*, 4 J. THEORETICAL POL.

yield maximum benefits for the grazers, better even than if the commons were divided into separate geographic shares, with nothing like the decline that Hardin predicted.

This terminology objection, of course, did not really challenge anything Hardin had said. Indeed, he had expressly noted that users could avoid the tragedy by embracing a coercive management system.¹⁶ The problem, then, was not with Hardin but with simplistic interpretations of this tale, particularly by readers who liked the idea of fragmenting nature into privately owned shares. A commons led to tragedy while privatization led to lasting productivity; that was the simplistic interpretation, one which students of real-life, successful grazing arrangements found wrongheaded.¹⁷

A more general concern about Hardin's use of the term looked to his implicit claim that a commons was in some way a special kind of place. It was a place that had not been divided into private shares. When a commons was divided, when each part of it had a distinct owner, then it was no longer a commons. Hardin, we might note, did not say this exactly. Indeed, his population example pointed in a rather different direction, to the view that the entire earth remained a commons despite fragmentation into nations and private shares.¹⁸ But again, Hardin's story was useful to many types of readers and it was easy to distinguish, using his grazing tale, between landscapes that were divided into private shares and those that were not. Only the latter were subject to tragic misuse.

One objection to this interpretation (that is, to the claim that privatization solves the tragedy) is that it overlooks ecological interconnections. What happens on one parcel is linked to physical conditions elsewhere given flows of air, water, wildlife, and nutrients. One landowner is enough to break up a wildlife migration corridor. One landowner can alter drainage in ways that substantially disturb downward owners. To the extent of interconnections, unseen ones as well as the seen, a landscape remains a commons even after its division.

247 (1992). A positive view of the commons is presented in Anna di Robilant, *The Virtues of Common Ownership*, 91 B.U. L. REV. 1359 (2011).

16. Hardin, *supra* note 1, at 1247.

17. E.g., OSTROM, *supra* note 15, at 12–13, *passim*.

18. Hardin, *supra* note 1, at 1243. In addition, Hardin made clear that landscapes divided into shares of privately owned land remained a commons with respect to water and air that carried away pollution. *Id.* at 1245.

A related objection is that landowners everywhere participate routinely in an economic commons when they produce goods or services for the market, competing for customers who move about as freely as cattle.¹⁹ Here we can consider the typical city in which owners of gas stations or drug stores compete for customers, establishing businesses in new locations in a never-ending quest for market share. The competition is plainly wasteful; there is no need for similar gas stations or drug stores adjacent to one another. And waste means ecological cost—tragedy—in some place, somewhere. Further, people living in the area are forced to drive by the competing businesses, and countless ones like them, traveling further distances simply to get where they want. City needs could be adequately met with fewer gas stations and drug stores, particularly abandoned ones. Too many of them populate the urban area, which remains a commons, despite its fragmented land ownership, due to the flows of goods, services, workers, and customers.

The same lesson about overuse is illustrated in the cases of oil fields and groundwater aquifers. Oil producers can often exploit an entire field using only one or a few wells.²⁰ Water pumpers can access an aquifer with similar efficiency.²¹ When the overlying land, though, is owned by large numbers of people and each has the right to install a well, the number of wells can quickly become excessive and wasteful. In the case of oil wells, too rapid pumping by too many wells can reduce overall output by releasing pressure too quickly. If we view the underlying oil deposit or aquifer as the common asset, one can argue that it has not been divided into private shares simply

19. The urban setting is considered in Nicole Stelle Garnett, *Managing the Urban Commons*, 160 U. PA. L. REV. 1995 (2012) and Sheila R. Foster, *Collective Action and the Urban Commons*, 87 NOTRE DAME L. REV. 57 (2011). Garnett and Foster pay attention chiefly to the urban spaces that are not privately owned. My example considers a city as a whole without regard for ownership of particular parts; the city as such remains a commons given the interconnection of its parts and the ways the conduct of one actor affects others. A related line of scholarship considers municipalities as actors within larger spatial scales. See, e.g., Jonathan Rosenbloom, *New Day at the Pool: State Preemption, Common Pool Resources, and Non-Place Based Municipal Collaborations*, 36 HARV. ENVTL. L. REV. 445 (2012).

20. The typical tools to reduce the waste of too many wells are rules limiting well spacing and setting minimum tract sizes for each well, together with unitization procedures that allow for the management of entire fields as single production operations. 1 WALTER L. SUMMERS, *THE LAW OF OIL & GAS* 267–72 (2004 and 2014 Supp.).

21. Texas is among the states that have sought to reduce inefficiency in groundwater extraction—and to conserve water in the process—in part by using well-spacing, well-production, and other rules long common in oil and gas fields. See Heather Welles, Note, *Toward a Management Doctrine for Texas Groundwater*, 40 ECOLOGY L. Q. 483, 491–94 (2013).

because the overlying land is fragmented. This is true enough, but what it illustrates is that division of lands into private shares almost never brings the commons to a full end. So long as private parcels are not completely sealed off, with no spillover effects among them—including no movement of people or goods among them—then features of a commons remain. A city remains a commons so long as people and their things freely move among competing locations, much as oil and water migrate among wells.

Hardin's tale, in short, is not usefully read as a story about a special kind of place known as a commons, a place distinguishable from other places that are privately owned. Pretty much all lands and resources face the dangers of tragic misuse whenever and to the extent activities unfolding on them trigger effects elsewhere. As for sealing off each parcel so that spillover effects end, the idea pushed to its fullness is nonsense. People need to come and go, as do the goods they produce and need. The health of lands everywhere depends on ecological systems and processes that necessarily transcend boundaries. To sever or disrupt them is to invite tragedy, not avert it.

Put simply, a commons exists in any setting characterized by interconnection and interdependence, whether ecological or social, which is to say essentially everywhere.

III. PRIVATIZATION AS A SOLUTION

Hardin's discussion of the solutions to his tragedy is subject to more direct challenge because of his too-easy assumption that the simple division of the grazing commons would end misuse. Hardin did not dwell on the point; he offered the observation mostly as an aside. But it was a claim that many readers found congenial, particularly readers who disliked government and viewed the market as a superior mechanism for resource-use decisions.²²

The falsity of this stance is easy enough to see simply by looking to landscapes in private hands. Overgrazing afflicts private lands as well as public ones. Private farmlands have long suffered from soil erosion and degradation. In the American Midwest, farmers on private lands routinely spread fertilizers and pesticides, leading not

22. Privatization as the preferred solution is critically considered in OSTROM, *supra* note 15, at 12–15, and Amy Sinden, *The Tragedy of the Commons and the Myth of a Private Property Solution*, 78 U. Colo. L. Rev. 533 (2007).

just to topsoil degradation and declines in soil biological diversity but to massive problems in waterways (dead zones most vividly). Too often owners of private forests have clear-cut them in ways that cause soil declines, siltation, fish kills, and other ill effects.

There are, in fact, a wide range of reasons why owners of private lands do not and sometimes cannot take good care of them.²³ The owners could be unaware of the effects of what they are doing, given that many harms are invisible, distant or slow-emerging. They could act based on strong competitive pressures or simply know no other way to behave. An overall culture of land misuse can exude an aura of legitimacy, carried forward by tradition and aided by misinformation dispensed retail by (for instance) equipment and materiel suppliers. Rational actors could use a discount rate for future costs and benefits that lead to exploitation today with the proceeds then invested elsewhere in higher-yielding assets. A short time-horizon might also be used for other reasons—simply the advanced age of the land user, for instance. The reasons are many, and have long been known.

Aside from these general causes of private-land misuses, there are the causes that are worsened when the commons is divided into smaller shares. Division increases the number and length of property boundaries, thus worsening problems related to externalities. Any division of a landscape increases the challenges of coordinating land uses at large spatial scales so as to address problems that can only be remedied at such scales (for example, protecting wildlife populations,²⁴ controlling excessive drainage or land-cover change,²⁵ and managing river floodplains²⁶). To break a landscape into smaller pieces adds to these problems, making it even more difficult to coordinate activities and lessening the powers of individuals acting alone to achieve good land use, even when they try.

23. A vivid and thoughtfully probed historical inquiry is DONALD WORSTER, *THE DUST BOWL: THE SOUTHERN PLAINS IN THE 1930S* (1979) (exploring the cultural origins of misuses of private lands). I comment on the issue in ERIC T. FREYFOGLE, *JUSTICE AND THE EARTH: IMAGES FOR OUR PLANETARY SURVIVAL* 26–42 (1993).

24. The science and policy challenges of protecting species, particularly imperiled ones, are considered in REED F. NOSS & ALLEN Y. COOPERRIDER, *SAVING NATURE'S LEGACY: PROTECTING AND RESTORING BIODIVERSITY* (1994).

25. One useful inquiry is David K. Mears & Sarah McKearnan, *Rivers and Resilience: Lessons Learned from Tropical Storm Irene*, 14 VT. J. ENVTL. L. 177 (2012).

26. One thoughtful study is J.B. Ruhl, et al., *Proposal for a Model State Watershed Management Act*, 33 ENVTL. L. 929, 931 (2003).

The division of an open-access commons into privately controlled shares can diminish overuse; that much is true and useful. But it by no means ensures good land use and in not insignificant ways can make that goal more elusive. The difficulties increase when the users acting in concert compare privatization with the option of commons governance. In the grazing setting, for instance, herdsmen in an undivided landscape can use rotational methods that allow them to respond flexibly to variations in range conditions over time and give sensitive areas long rests. This option becomes more difficult, even infeasible, when a landscape is cut into small pieces.

IV. THE ONE SOLUTION

In Hardin's view, as noted, the solution to the tragedy was some version of mutual coercion mutually agreed upon.²⁷ A quick read of his article, though, can give one the sense that he had two solutions in mind, as to some extent he did—government ownership with regulatory control and the private property alternative. For many readers, these came across as solutions that differed in kind, and lots of them much favored the latter.²⁸

In fact, however, the private-property approach is merely a form of mutual coercion mutually agreed upon, and not necessarily much different from overtly regulatory approaches. To see this point one has to pause to consider how property arises and how it operates over time.

Mythology aside, private property is entirely a social creation.²⁹ It arises when a group of people agree among themselves in some way—perhaps democratically but perhaps with elites giving orders—to divide up uses of a landscape in some fashion and to allocate use rights to individuals and families or other groups. Property is a highly flexible institution in that widely varied things can be subject to ownership with rights and limits of ownership that vary just as widely. To create a property scheme, then, a law-making community needs to make key decisions, especially on the basics: what can be owned, how rights will be defined, how norms will be enforced, and

27. Hardin, *supra* note 1, at 1247.

28. Scholarly works strongly favoring privatization include Adler & Stewart, *supra* note 14 (for fisheries management), and Jan G. Laitos & Rachel B. Gamble, *The Problem with Wilderness*, 32 HARV. ENVTL. L. REV. 503 (2008) (wilderness areas).

29. Joseph William Singer & Jack M. Beerman, *The Social Origins of Property*, 6 CANADIAN J. OF L. & JURISPRUDENCE 217 (1993).

what powers lawmakers will retain to change rules over time and to reclaim property (expropriate it) for the common good.³⁰ Property rights can give owners exclusive or near-exclusive rights to use particular, bounded geographic places. Or they can vest owners with specific rights to use particular places while other owners enjoy rights to use the same places in different ways. Property rights can vary greatly in duration, and owners may or may not gain rights to transfer their property to new owners or to shift to different uses. In some way, property law needs to make rights available to the first owners—to allocate the property—and the possible allocation methods are numerous.³¹

These widely varied options to create private property are usefully compared with what is commonly thought of as the opposing option: government ownership with regulatory control.³² This latter option also involves government coming up with a legal scheme controlling use of the landscape. To that extent, the options are the same. A government-run system could involve use of the landscape by people working for the government itself or for community members collectively. This option, if chosen, would differ noticeably from many of the private-property variants. More likely, though, a government would retain control but make tailored rights to use the landscape available to private actors, much as, on federal lands in the United States, grazing, mining, and timber harvesting are all done by private actors. When this latter approach is selected, the differences between the private-property and government-regulation options narrow further. Indeed, they can narrow to the point where the two options differ only in details. In

30. I consider the many options available to lawmakers when crafting property systems in ERIC T. FREYFOGLE, *THE LAND WE SHARE: PRIVATE PROPERTY AND THE COMMON GOOD* 11–36 (2003).

31. A concise summary of the issues appears in ERIC T. FREYFOGLE & BRADLEY C. KARKKAINEN, *PROPERTY LAW: POWER, GOVERNANCE, AND THE COMMON GOOD* 393–96 (2012); *see also id.* at 312–14 for the options for resolving disputes among owners.

32. The ideas set forth in this paragraph and the next are developed at length in Eric T. Freyfogle, *Good-bye to the Public-Private Divide*, in *AGRARIANISM AND THE GOOD SOCIETY: LAND, CULTURE, CONFLICT, AND HOPE* 83–106 (2007). The line is also blurred considerably in proposals for laws that facilitate private action to govern particular neighborhoods or landscapes. *See e.g.*, Robert C. Ellickson, *New Institutions for Old Neighborhoods*, 48 *DUKE L. J.* 75 (1998); Robert H. Nelson, *Privatizing the Neighborhood: A Proposal to Replace Zoning with Private Collective Property Rights to Existing Neighborhoods*, 7 *GEO. MASON L. REV.* 827 (1999). Adding further complexity is the frequent existence of multiple levels of governance. Blake Hudson, *Federal Constitutions: The Keystone of Nested Commons Governance*, 63 *ALA. L. REV.* 1007 (2012).

both instances, laws set the terms of use rights. In both instances, systems are backed by state enforcement powers. In both instances, private actors have legally secure use rights and they are the ones who engage in the profit-seeking land uses.

Indeed, when the various land-governance options are all set out (or a sufficient number and variety of them), they form not two categories of public property and private property but something like an unbroken continuum of rights and land-use arrangements, varying (on one end) from public land used only by government and off limits to private actors (a sensitive defense installation, for instance), to private land in a remote rural location with nearly no land-use controls and few spillover effects. In between these poles would be variations on the scope and nature of private use rights and in the retained government powers to revise the terms of the use rights over time and to redirect resources to different uses and users.

Private property is based on the exercise of government power in the sense that laws and police are what compel people to respect one another's private rights. It rests, that is, on *sovereign* power, not on some power source arising apart from government. And it is based, just as much as any other government regulation, on coercion. To vest rights in one landowner is to restrict coercively, by state action, the liberties of all other people.³³

V. THE CHALLENGES OF AVOIDING THE TRAGEDY

Hardin cannot be faulted for the idea that the private-property remedy somehow differs in kind rather than degree from the regulatory option. He might be faulted, though, for not saying more about the grave difficulties involved in setting up any coercive regime, one that allows intensive uses of a landscape but keeps the uses within proper bounds; a regime that allows full use but somehow forestalls abuse. In reality, the work involved in this law-making or norm-creating is quite considerable. It is hardly enough simply to draw lines on a map, dividing a landscape into shares. Far more labor is needed to craft workable rules and to enforce them overtime. The challenges in doing this are many, and they arise in every land and resource setting. They can be particularly acute in settings where nature itself is highly dynamic and when (as often)

33. Eric T. Freyfogle, *Property and Liberty*, 34 HARV. ENVTL. L. REV. 75 (2010).

actions by one person directly affect both other people and the resource itself, understood in ecological context.

As an initial matter, it seems obligatory in any setting to start with the basic distinction between the legitimate use of nature and the misuse of it. How should lawmakers differentiate the two? This is, as noted, a normative task, and a challenging one when done wisely and morally; when it takes into account, as it should, the full range of factors relevant to it.³⁴

This line-drawing is a necessary element in any rights-allocation system because, for reasons mentioned, market forces and human nature are not such that a community can expect individual users voluntarily to stay on the right side of the use-abuse line. If a community really wants to halt misuse, then it needs to tailor use rights under any scheme so as to allow legitimate uses and disallow all misuses (Hardin's main point). A legal scheme need not rely solely on prohibitions of misuse, particularly in the case of land- or resource-use harms that entail what might be termed carrying-capacity harms: actions that are harmful only when too many people engage in them.³⁵ In that setting and others, lawmakers could use other management tools, perhaps involving economic incentives, perhaps instead involving efforts to nurture and strengthen social norms.³⁶ Still, a line must be drawn, which means, somehow, doing the work of drawing it. This work is likely to call for considerable ecological knowledge, as well as mature thought on the various relevant normative factors. The need for ecological knowledge in turn can require extensive scientific study.

With this line-drawing done (for the time being), the next step is to craft use rights so that they allow land and resource uses consistent with it. In the case of highly varied landscapes, this will likely mean tailoring the use rights to nature itself so as to allow uses that are ecologically sound and to limit those that are not. The guiding principle here would be rights that are based on nature in the sense that they take natural features into account.³⁷ Opposed to

34. I explore the challenge in ERIC T. FREYFOGLE, *THE USE AND ABUSE OF NATURE: MAKING SENSE OF OUR OLDEST TASK* (forthcoming University of Chicago Press, 2016).

35. Hardin's examples all qualify as actions that are harmful only when too many people engage in them. I consider the issue in FREYFOGLE, *supra* note 30, at 221.

36. A useful consideration of options is Christopher S. Elmendorf, *Ideas, Incentives, Gifts, and Governance: Toward Conservation Stewardship of Private Land in Cultural and Psychological Perspective*, 2003 U. ILL. L. REV. 423.

37. FREYFOGLE, *supra* note 30, at 203–27.

this—to highlight the point—are property rights defined abstractly, as with the hypothetical Greenacre or Blackacre: rights defined with no regard for natural features or for the effects of a given resource-use in a particular place.³⁸ This work too may be quite challenging. And, again, it needs to be done under any coercive option, whether termed private property or government control. It needs to be done, that is, if the goal (as assumed) is to avoid abuse entirely and if the community of users is not so close-knit, and so well-guided internally, that individual owners (*contra* Hardin's tale) can be counted on to avoid bad actions on their own.

Making this tailoring job more difficult is nature's dynamism and the fact that human actions themselves inevitably change the parts of nature being used.³⁹ Change in physical conditions in turn means, in dialectical fashion, changes in the future uses that will be permissible under the new conditions. Also shifting will be prevailing ideas about good land use—about the line drawn between use and abuse—shifts that could occur because of new factual knowledge but could also occur due to evolving communal needs and values.⁴⁰ The factors interact in a kind of multi-factor dynamism, one that can prove especially knotty in the case of biological resources (fish, for instance) where populations are subject to wide natural variations and where the capture of one species can distort populations of other species.⁴¹ It can prove knotty also due to variations in weather patterns—drought, flooding, extreme temperatures—and to natural disturbance regimes such as fire.

In some way lawmakers charged with the task of crafting private use rights need to take this dynamism into account. They could do so by erring on the side of great caution, by allowing year in and year out only those limited land uses that would respect the land's ecological health

38. I challenge this perspective in ERIC F. FREYFOGLE, ON PRIVATE PROPERTY: FINDING COMMON GROUND ON THE OWNERSHIP OF LAND 12–26 (2007).

39. The challenges posed by nature itself are considered in Bradley C. Karkkainen, *Collaborative Ecosystem Governance: Scale, Complexity, and Dynamism*, 21 VA. ENVTL. L. J. 189 (2002).

40. A classic historical study of the dialectical interaction of nature and culture, and how it plays out in terms of property-use systems, is WILLIAM CRONON, CHANGES IN THE LAND: INDIANS, COLONISTS, AND THE ECOLOGY OF NEW ENGLAND (1983).

41. These challenges and many others are considered in Boyce Thorne-Miller, *Setting the Right Goals: Marine Fisheries and Sustainability in Large Ecosystems*, in PRECAUTIONARY TOOLS FOR RESHAPING ENVIRONMENTAL POLICY 155 (NANCY J. MYERS & CAROLYN RAFFENSPERGER, EDS., 2006).

under any and all foreseeable landscape conditions. That approach, however, is likely to be rejected as much too cautious. The alternative is to allow more intensive use levels but to embed into the private rights some mechanism to curtail use levels when needed to respond to these dynamic factors. A fishery is again a good example: harvest levels need to vary with natural fluctuations in target-species populations. Various methods could be used to build-in this responsiveness. All of them, though, require ongoing monitoring, data collection, and adjustments to use levels. All of them require ongoing involvement in managing use levels at the landscape (or fishery) level. It is not enough under any option for lawmakers to set usage levels once and for all and then walk away. In short, a property-rights approach requires ongoing manipulation, just as does the regulatory option, if it is really going to avert overuse.

To get to this point is to see that the property-rights and regulatory approaches may not be all that different. Of course they could be quite different in a particular setting. Lawmakers taking a property-rights approach could define private use-rights in clear, unchanging terms, without making them responsive in any way to shifting natural conditions. But by doing that, they give up the power to protect the resource against overuse. Their lawmaking might still reduce Hardin's tragedy but would not eliminate it. To gain full protection, the property-rights approach would need to take shapes that rather closely resemble the regulatory option, perhaps quite closely.

In the end, the work required to create a property-rights system might not be all that much less or different from the work needed to run a successful regulatory system.⁴² Both require extensive, sensitive efforts by lawmakers that attend closely to ecological facts. Both require lawmakers to resist pressures by user groups to authorize higher use-levels than are consistent with the avoidance of overuse. Can lawmakers be counted on to do this? Are they likely to resist pressures to set permissible use-levels too high? Probably not, most would say; surely not, others would contend. Biased lawmaking is indeed a danger if not a high probability. But it is a danger, we need to see, under *both* the property-rights and the regulatory approaches. The property-rights approach might lessen this problem somewhat

42. I consider the similarities and identify differences in FREYFOGLE, *supra* note 30, at 174-77.

but the problem hardly goes away. In this light, is there reason why we might have greater confidence in lawmakers when they are specifying the elements of property rights (wearing one hat) than when they are crafting more overtly regulatory tools (wearing a different but similar hat)? Is it sensible to blast regulators as incompetent but then expect them (or their statute-writing colleagues) to do vastly better when it comes to specifying property rights?

VI. ROOT CAUSES, AGAIN

In Hardin's simple story, the grazers overuse the pasture because they want to increase their individual short-term profits. That motive is not merely the primary one; it is, apparently, the only one, with no other factors in supporting roles.⁴³ Hardin's explanation has obvious merit to it; profit is patently a strong lure. But as a summary of the root causes of degradation—of the factors and reasons why humans misuse nature—it is nowhere near complete. The factors at work could well be quite numerous, especially when we consider many settings. We need to identify and trace these other causal factors before Hardin's tale can stand as more than a crude explanation of why people act as they do.

What other factors might be at work in a grazing story such as Hardin's?⁴⁴

43. This view of human behavior is explored and criticized in Russell B. Korobkin & Thomas S. Ulen, *Law and Behavioral Science: Removing the Rationality Assumption from Law and Economics*, 88 CALIF. L. REV. 1051, 1053–55 (2000).

44. The question as posed implicitly raises foundational questions: Why do humans degrade nature? What are the root causes of our misguided acts? The literature on the subject is far less developed than it should be given the importance of the questions and the need ultimately for solutions that address root causes. Thoughtful comments on our overall plight are offered in DONALD WORSTER, *THE WEALTH OF NATURE: ENVIRONMENTAL HISTORY AND THE ECOLOGICAL IMAGINATION* 3–63 (1993). A critique of market capitalism as a cause of degradation is presented in FRED MAGDOFF & JOHN BELLAMY FOSTER, *WHAT EVERY ENVIRONMENTALIST NEEDS TO KNOW ABOUT CAPITALISM* (2011). I develop my views on root causes in FREYFOGLE, *supra* note 34.

One possibility, already mentioned, is that a grazer might act in ignorance, whether about the carrying capacity of the land or about the numbers and grazing plans of fellow grazers. Hardin looks down on his created scene from above, knowing all. Grazers on the ground might know a lot less. Related to this, the grazer might disagree about what qualifies as overgrazing—or, more generally, about where to draw the line between legitimate use and abuse.

As for the selfish drive for short-term profits, an individual grazer might be inclined to resist it. But what is the consequence for an individual grazer who refrains from adding more cows? If the consequence is that the grazer thereby improves pasture conditions then the grazer might hold back. But to bring about Hardin's tragedy we do not need *every* grazer to be selfish. Not every grazer needs to make the calculation that Hardin presumes. We probably need only a few grazers, maybe just one. One aggressive grazer alone might add enough animals to degrade the entire pasture.⁴⁵

This possibility gives reason to modify Hardin's simplistic story. A conscientious grazer who wants to avoid overgrazing and is willing to do his part is put in a bind. Yes, the grazer can refrain from adding animals. But if the tragedy is going to take place anyway, if other grazers can ruin the land without his help, what is the benefit? There no longer is the tradeoff of either higher short-term profits and a degraded pasture or lower profits and a healthier pasture. The landscape will decline in any event. So what is the point of holding back?

A grazer who appraises the situation this way and then, perhaps with resignation, goes ahead to add cattle, is not acting selfishly, not in any full sense. His situation is akin to that of the nature lover who wants to see a wilderness area left untouched but has no power to keep others from altering it. The person might then go ahead and invade the wilderness, despite wanting it protected, simply because others will do so anyway. To refrain might be virtuous in the sense of reflecting good character. But it is not ethically required under any ethical system based either on rights or consequences.⁴⁶

45. Hardin introduced this line of reasoning in the context of population growth to explain why the challenge could not be met simply by appealing to the consciences of individuals as such. Hardin, *supra* note 1, at 1246–47.

46. The various strands of ethical thought relating to our uses of nature are considered and synthesized in a dated but still useful source, BRYAN G. NORTON, *TOWARD UNITY AMONG ENVIRONMENTALISTS* (1991).

To these possible motivations for overgrazing we can quickly add others, many of them that also explain abusive practices by private landowners.⁴⁷ A grazer could simply be short-sighted and not care about the future or could use a high discount rate that reduces the weight given to future harms when compared with present gains. The simple fact that the grazer is willing to push the land to its limits to meet human wants (rather than acting more cautiously), and the fact that he views land and animals as objects of manipulation (and not, in the case of the cattle, as fellow creatures), also play explanatory roles in the chain of events. As best we can tell, Hardin's grazers view their landscape simply as a place to raise cattle; it is not a multiple-use land that might produce varied benefits. As for the always-important economics, we know nothing about the grazers and how they are faring. Might they need extra money to feed hungry families or to pay impatient tax collectors? Knowing as little as we do about the context, it is presumptuous to guess motives and judge conduct. Starving people do not steal food because they are selfish.

Another key part of this whole tragic saga, again implicit in it but not highlighted, has to do with the market in which these grazers are apparently embedded. A grazer who raises ever more cattle to make money is likely raising them to sell. To note the presence of a market and the chance to make money in it is to bring in another key causal factor. Take the market away and the overgrazing might even end.⁴⁸

Then we have the question that has loomed above Hardin's tale from the beginning, the question that should have been, for decades now, at the center of discussions about Hardin's tragedy. If his grazers could have come together collectively to develop a management plan, benefiting all of them, why did they not do it? Why did they continue competing as autonomous individuals rather than cooperating for shared gain? In an important sense, the real cause of the tragedy is precisely this: the failure of the grazers to communicate, to get together, and to act sensibly. So why did they fail to cooperate?

To raise this issue is to highlight yet again how ignorant we are about this simple grazing commons and to see how this

47. FREYFOGLE, *supra* note 23, at 26–42.

48. The argument is developed in MAGDOFF & FOSTER, *supra* note 44, and CHRIS WILLIAMS, *ECOLOGY AND SOCIALISM: SOLUTIONS TO CAPITALIST ECOLOGICAL CRISIS* 226 (2010) (“[I]t is the economic system that dictates that nonsustainability is rational, not people.”).

ignorance can (and does) readily lead to mistaken assumptions. As possible answers to these questions—as explanations why competing grazers might fail to communicate and work together—it is easy to round up some likely suspects:⁴⁹

- The bad communication could stem from differences among the grazers themselves: differences in language, ethnicity, religious, race, and so on.
- It could be due to membership in different political or tribal groups that do not get along.
- The grazing region could be (probably is) a borderland where group competition plays out; historically these are the grazing regions most often misused.
- Perhaps the prevailing political and social culture is weakened by oppression with talk among people stifled by fears of informers, secret police or organized crime.
- If grazers are taxed for each animal they own they may just refuse to talk about their herd sizes and to question others about theirs.
- Finally, the grazers might simply feel helpless and resigned. They may assume that any arrangement they concoct will collapse under pressure from outside powers—from powerful cattle buyers (global corporations?), for instance, driven by neo-liberal agendas.⁵⁰

All of these possibilities need to be placed on the table as causes of landscape tragedies. Tellingly, none of them appears in Hardin's

49. A thoughtful inquiry is Barton H. Thompson, Jr., *Tragically Difficult: The Obstacles to Governing the Commons*, 30 ENVTL. L. 241 (2000).

50. Such fears might be well grounded in the realities of the settings in which interested parties come together. Discussions could be skewed to favor particular interests that wield disproportionate power. Amy Sinden, *In Defense of Absolutes: Combatting the Politics of Power in Environmental Law*, 90 IOWA L. REV. 1405 (2005). Similarly, the processes of engagement could be ones that are so drawn out, and so costly for the participants, that only the best-funded interests can stay engaged. John D. Echeverria, *No Success Like Failure: The Platte River Collaborative Watershed Planning Process*, 25 WM. & MARY ENVTL. L. & POL'Y REV. 559 (2001). More generally, cooperation that takes place through institutions is subject to the limitations of such institutions; the topic is surveyed in Daniel H. Cole, *The Varieties of Comparative Institutional Analysis*, 2013 WIS. L. REV. 383.

simple story. For us to interject any of them requires that we add facts to his tale (thereby making it more plausible). There is one big causal factor, though, that is present in Hardin's narrative without any need to add complexity. This is the inclination of his fictional characters simply to look after themselves as individuals, ignoring everyone else. Each grazer, Hardin tells us, responds solely to the costs and benefits he incurs as an individual. It is a culture of go-it-alone; a culture in which individuals look at their neighbors as competitors, not colleagues. As Chris Williams has pointed out, Hardin presents this motive as "a transhistorical fact." He describes as rational "the very thing that traditional herdsman and peasants sharing 'common' lands historically avoid."⁵¹

For the grazers in Hardin's story to act as they should have, for them to have come together and developed a pasture-management scheme, they needed to live and work within a culture that expected and nurtured cooperation.⁵² They required a home culture in which people acted as citizens or community members as well as market participants. Further, they required a culture—if they were to sustain healthy pastures—that generated and shared ecological wisdom about landscapes and that included vocabulary suitable for talking about it. The ideal of land health, or something like it, would need to stand as a matter of common concern, suitable for common resolution. Finally, the culture needed to view collective action, through some sort of governmental means, as a legitimate way for people to pursue their aims. It could not be a culture in which people treated government as the enemy. It could not be a culture in which land abusers could ward off critics by raising high the shield of individual liberty.⁵³

51. WILLIAMS, *supra* note 48, at 43–44.

52. This point, and those made in the next three sentences, appear prominently in the many writings of Wendell Berry, e.g., *Conservation and Local Economy*, in WENDELL BERRY, SEX, ECONOMY, FREEDOM & COMMUNITY 3–18 (1993).

53. Beyond these points, users of the commons would typically need to develop governance arrangements that responded to the various forces that could undercut successful commons management. The traits of successful commons-management arrangements are surveyed in OSTROM, *supra* note 15, at 58–102. Ostrom usefully probes the complex motives of individual users of commons in *A Behavioral Approach to the Rational Choice Theory of Collective Action*, 92 AM. POL. SCI. REV. 1 (1998).

A land-respecting culture can certainly embrace private property.⁵⁴ But it cannot view private rights as so strong and inflexible that cooperation among owners occurs only by unanimous agreement. If private rights are inflexible, if grazers can halt overgrazing only when everyone agrees, then a single dissenter can frustrate everything. In short, strong private rights—whether or not phrased in property terms—can quickly cause ruin, even when nearly everyone wants to avoid it. And it is hardly fair to say that people who value land health simply need to pay abusers enough to get them to stop. Why should they bear such a burden?⁵⁵

The larger issue here, to reiterate, has to do with the root causes of tragedy-inducing behavior. This tragedy, like all environmental problems, is brought on by human action. The search to learn why people misbehave should thus be central to any inquiry into our environmental plight. Hardin cannot be faulted much for largely ignoring the issue; for assuming simplistically that overgrazing stems from one factor. But commentary on it, and certainly commentary on our environmental plight generally, has been much weakened by a failing to put this issue front and center, although important exceptions, to be sure, exist.⁵⁶ Yes, when a market exists and people desire to get ahead they take steps that make them money. To that extent Hardin's tale is well grounded. But in a culture that honors land health—one that facilitates discussion on key normative issues, that encourages cooperation as well as competition, and that views government as the people's agent for shared work—the profit motive might fade in significance.⁵⁷

54. Wendell Berry, *Private Property and the Common Wealth*, in BERRY, ANOTHER TURN OF THE CRANK 46–63 (1995).

55. The issue is considered in John D. Echeverria, *Regulating Versus Paying Land Owners to Protect the Environment*, 26 J. LAND RESOURCES & ENVTL. L. 1 (2005). Payment to land owners to avoid harmful activities also undercuts the moral legitimacy of private property rights in nature. FREYFOGLE, *supra* note 30, at 105–30.

56. Still high on the list of penetrating cultural critiques is Aldo Leopold's classic work, *A SAND COUNTY ALMANAC AND SKETCHES HERE AND THERE* (1949), an extended meditation on the new ways of seeing and valuing nature that people needed to embrace if they were to live well on land in the long run. Perhaps Leopold's most concise depiction of this new world view appears in his *The Farmer as a Conservationist*, in *THE RIVER OF THE MOTHER OF GOD AND OTHER ESSAYS BY ALDO LEOPOLD* 255 (Susan L. Flader & J. Baird Callicott, eds., 1991) (originally published 1939). Leopold's thought is most carefully surveyed in JULIANNE LUTZ NEWTON, *ALDO LEOPOLD'S ODYSSEY: REDISCOVERING THE AUTHOR OF A SAND COUNTY ALMANAC* (2006).

57. A vibrant civil society is likely also a prerequisite. Julianne Lutz Newton & William C. Sullivan, *Nature, Culture, and Civil Society*, 1 J. CIV. SOC'Y 195 (2005).

Today's culture of liberal individualism includes and gives priority to cultural elements that are root causes of ecological degradation.⁵⁸ It features cultural elements that foster land-use tragedies while frustrating efforts to halt them. Particularly in its liberty-loving, anti-government forms, liberal individualism undercuts efforts to see landscapes as ecological wholes and to think normatively about their conditions and prospects. It holds high the rights of individuals to go it alone like Hardin's grazers so long as they respect the rights of others to go it alone also. As Hardin illustrated, this is a culture that leads readily if not inexorably to disaster. Responsible libertarians, to be sure, call for compliance with laws, property law especially. But the culture they press forward is a culture that frustrates good lawmaking, including, importantly, the lawmaking required to come up with new well-crafted property rights.

When mutual coercion is the only solution to avoid tragedy, as it is in setting after setting, a culture that despises and resists such coercion—a culture that presses hard to keep it from happening and, when it does take place, views the lawmaking arena as simply another venue for individuals as such to get ahead—is a culture that is driven to ruin. The work of mutual coercion, of crafting collective management schemes, is difficult even when all participants support it and bring to the table their best inner selves. When many of them instead do all that they can to undercut it and/or to manipulate rule-making to benefit themselves—when the culture they embrace views such self-seeking behavior as simply vigorous competition—then the path to hope becomes yet darker and more treacherous.

VII. NAMING THE TRAGEDY

The title Garret Hardin gave to his essay did not really name the tragedy that took place in his grazing landscape (or in his overpopulated world). Rather, his title seemed to identify *where* the tragedy occurred. But Hardin does imply that his tragedy unfolds because the pasture is not governed by an effective land-management regime, by some version of mutual coercion mutually agreed upon. It is the absence of good laws that is the problem, and a new legal arrangement, he tells us, is the only solution. In that light, his title identifies not just the place of the tragedy but also its

58. FREYFOGLE, *supra* note 34.

cause. Government (assuming it exists) is to blame for not adequately controlling the self-seeking individuals.

One might readily object to this shifting of causal responsibility. A well-constructed legal regime is the *solution* to the problem, not its *cause*. The grazers bring on the overgrazing themselves. The true causes of the tragedy are the forces and factors that lead the grazers to act as they do rather than in other, more responsible ways. Government is not to blame, nor, really, is the commons itself, even if we could somehow view nature as an active agent in the unfolding drama. When the commons is used by people who collectively want to use it well and who have the knowledge, skills, and opportunity to do so, then (and only then) does the outcome brighten.

If we want an apt name for Hardin's narrative, then, we need to look in another direction. An apt title would be one that summed-up, in a few words, the key cause of the misbehavior. As for that, the possible titles are many, and it might prove helpful to debate their relative merits as an avenue for probing the likely causal factors.

One place to turn for a new name is to Bernard Mandeville's eighteenth-century classic work, much liked by libertarians and market enthusiasts, *The Fable of the Bees: Or Private Vices, Publick Benefits*.⁵⁹ Mandeville was an early advocate of the view, later connected with Adam Smith, that linked energetic money-making efforts to economic growth that benefited the public generally. Mandeville's thinking, of course, is best understood in the context of his worldview and its distinct (and now ignored) assumptions about a binding moral order. But we can put his age aside and take inspiration from his title. Hardin's tale might be termed "The Fable of the Cows: Or Private Vices, Public Decline."

As noted, the overgrazing in Hardin's tale is also closely linked, essentially so perhaps, to the unmentioned market in cattle. Take away that market, take away the grazers' tendency to view cattle as capital assets, and the overgrazing would diminish if not end. We could thus consider, as a second option for the title, "The Tragedy of Market Capitalism."⁶⁰ If selected, this phrasing might prompt readers to see links between tragedies of the type Hardin described and

59. BERNARD MANDEVILLE, *THE FABLE OF THE BEES: OR PRIVATE VICES, PUBLICK BENEFITS* (J. Johnson, ed., 6th ed. 1732). The volume remains in print from various publishers. It originally appeared in differing editions between 1714 and 1732.

60. The argument is made by various writers including MAGDOFF & FOSTER, *supra* note 44, and WILLIAMS, *supra* note, at 48.

other instances of wastefulness and degradation brought on by the vigorous pursuit of profits. Detroit, Michigan, could supply ready facts for several illustrations. Variations of this title could draw attention to particular elements of the market, to its commodification of nature, for instance, or to the short-term perspective that it invites and rewards.

One might be tempted as a further option to choose a title that gets at the selfish individualism involved in Hardin's tragedy, at what might be termed the cussed individualism. But we need to be careful with this phrasing, tempting though it is. In Hardin's tale, the grazers as individuals would have been better off had they worked together. The problem—in this setting, though not in all—was thus not the grazers' presumed desire to flourish economically. It was, more exactly, their failure to pursue that goal by working in tandem. An accurate name would need to get at this particular aspect of individualism, the "go-it-alone" version of individualism, the kind of individualism that fails to recognize how a responsible person plays many social roles with expectations of good conduct attached to them.

Two years before Hardin's article came out, the economist Alfred Kahn wrote a rather similar article that highlighted the same problem. Kahn's article drew less popular attention, very possibly, one might guess, because he phrased the issue in a way that many readers liked far less. Kahn's essay was entitled "The Tyranny of Small Decisions."⁶¹ It highlighted how individuals who made decisions in isolation, even acting in economically rational ways, could drag down the communities to which they belonged. When people stood apart, when they chose or were compelled to act in isolation, their individual "small" decisions brought harm to the whole. This title was later picked up by an ecologist, William Odum, who explained how it linked to ecological degradation.⁶²

Kahn's title was far more apt than Hardin's in terms of highlighting the cause of the bad outcome. It pointed a finger more directly at the individual grazers—it was their decisions that brought on the harm, not any failing of government—and emphasized that the problem had to do with their isolation or

61. Alfred E. Kahn, *The Tyranny of Small Decisions: Market Failures, Imperfections, and the Limits of Economics*, 19 *KYKLOS* 23 (1966).

62. William E. Odum, *Environmental Degradation and the Tyranny of Small Decisions*, 32 *BIOSCIENCE* 728 (1982).

autonomy. So long as the grazers acted alone, not together, their decisions were bad ones. Kahn's title, then, could be recycled. Hardin's tale is very much one in which small decisions exerted destructive power; it too showed the tyranny that they could bring on.

Small decisions become more likely when a landscape is divided into many small pieces and when management of the pieces is turned over to individual owners. As Hardin points out, the division of the landscape into private shares might well diminish the harms that unfold in a pasture that is completely uncontrolled.⁶³ Privatization is a step in a good direction. But it is only a step and it is unlikely to sustain the landscape's long-term productivity. For reasons mentioned, fragmentation can leave key problems unaddressed. And it can make many forms of good land use more difficult. To get at these problems we might then select as a new title something like "The Tragedy of Fragmentation."⁶⁴ Like the Tragedy of Market Capitalism, this title also has broader usage. It can refer, not just to the fragmentation of landscapes in physical senses, but to other forms of fragmentation: to views of nature as a collection of pieces and parts rather than integrated ecological systems; to views of humans as distinct autonomous beings detached from social bonds and surrounding communities; to the disconnection of the present generation from past and future ones; and to the division of life forms into distinct categories with widely varied moral value. As a title, The Tragedy of Fragmentation more directly engages issues of ontology. It challenges views of being that emphasize the organic parts and discount the wholes that they help form together with the emergent properties that arise only at such higher levels.⁶⁵

In the end, however, perhaps the most apt new title for Hardin's tale would be one that points as distinctly as possible at the reasons why the grazers might fail to get together to cooperate. Cooperation alone is certainly not enough to avoid bad outcomes; the grazers could cooperate to exploit the commons with zest, take their profits and run. Cooperation thus needs to work hand in hand with sound

63. Hardin, *supra* note 1, at 1245.

64. I use the term and elaborate the idea in FREYFOGLE, *supra* note 30, at 157-78.

65. The point served as a central theme of Leopold's *Almanac*, beginning with two much-quoted sentences from the book's foreword: "We abuse land because we regard it as a commodity belonging to us. When we see land as a community to which we belong, we may begin to use it with love and respect." LEOPOLD, *supra* note 56, at viii.

values, with extensive ecological knowledge, and with a form of humility that reflects human ignorance about changing nature. But the cooperation nonetheless remains the key. The grazers simply must get together, plain and simple. If external forces keep the people apart, then we need to point to those forces and make clear their costly consequences. But if as usual (one suspects) the grazers are kept apart because of reasons internal to their membership, because of the flawed culture in which they operate, then the name for the tragedy should point in their direction.

In some way, a name that gets at this root cause should hold high the need for the grazers to think of themselves as bound together in a community, or more exactly, as embedded within at least two communities, the social and the ecological. Practically speaking a good grazing arrangement will respect nature as an interconnected, interdependent community of life. Humans will appear embedded in that community and ultimately dependent on its long-term health. In social terms, the grazers need to see similarly that they belong to human social networks and depend on the strength and good content of those networks. Fully good land use is possible only when the grazers recognize these communities and, having recognized them, work to sustain them. In that sense, we can rightly view the health of grazing region as a condition or property that emerges only at the community level, only when both the land community and the human social community are healthy and functioning well.⁶⁶ Good land use is thus an emergent property, generated at the community level and only at that level. Seeing this, we might then choose as our title *The Tragedy of Weak Communities* or *The Tragedy of Incomplete Communities*.

These various names each have appeal. Perhaps they could be used somehow in tandem. Yet one more name can usefully go on this list, a title that seems most apt in the modern age, most apt in a culture guided by the kind of libertarian, free-market ideology that has gained such prominence in the United States of late.

The liberal trajectory of the Western World over the past three centuries has brought substantial gains in many realms, of that there is little doubt.⁶⁷ In economic realms it has fostered substantial

66. Wendell Berry makes the point, which is central to his writings, in *Health Is Membership*, in BERRY, *supra* note 54, at 86.

67. I develop the ideas in this paragraph and the next in FREYFOGLE, *supra* note 34.

increases in economic productivity, sizeable enough overall to exceed in value the considerable associated costs. In social realms liberalism has brought great gains for the downtrodden and unfairly burdened. In political realms it has spread political power through increases in suffrage. Driving much of this has been a commitment to rationalism and empirically grounded science along with a wide-ranging willingness to challenge and revise inherited understandings. Providing the polestar has been the liberated individual, increasingly free to develop and embrace values as she sees fit. This liberal social thought did not have to carry over into the ways people viewed nature. But to some extent it did. Nature, too, came to seem more fragmented and competition based. This liberal view of nature in turn made it easier to relax traditional limits on economic enterprise.

When we revisit Hardin's tale in light of this long-term cultural trajectory, we can see that the bad-acting grazers that he describes are in fact familiar characters. They are exemplars of the fully liberated individual, the individual freed of all social and economic constraints and freed too of ethical and religious norms that might inhibit the overgrazing (of the type Adam Smith presumed). Setting to one side possible external causes, it was this full-bore liberation of the individual that brought destruction to the landscape. In Hardin's fictional world all senses of community had disappeared. All felt constraints were relaxed. The liberated individual grazers could proceed as they saw fit, pursuing short-term profits and degrading their natural home.

Thus we might consider, as a final title, "The Tragedy of Liberalism Taken Too Far."

