



The Tragedy of Limitless Growth: Re-interpreting the Tragedy of the Commons for a Century of Climate Change

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ABSTRACT This article argues that Garrett Hardin's primary object of critique in his influential "The Tragedy of the Commons" is not the commons or shared property at all—as is almost universally assumed by Hardin's critics—but is rather Adam Smith's theory of markets and its viability for protecting scarce resources. On the basis of this revised understanding this article then offers a different interpretation of Hardin's thesis by assigning hermeneutic priority to the concept of "tragedy" (Aristotle, Nietzsche) rather than the concept of the "commons." Read through the concept of tragedy, it argues that Hardin's thesis effectively asserts a rigid incompatibility between market economics and environmental protection, and to this extent "The Tragedy of the Commons" is more aptly read as a political critique that questions the viability of unlimited growth as the axiomatic premise of planetary economics.

Introduction: Beyond Enclosure

At the height of the most politically turbulent decade of the 20th century, American ecologist Garrett Hardin published what would become one of the most influential academic articles for framing the debate between economic development and environmental protection. Published in the journal *Science* in December 1968, Hardin's "The Tragedy of the Commons" argued that increasing awareness of the planet's ecological limits meant that the natural environment must become the concern of political theory lest intensifying industrialization deplete scarce natural resources. It was thus in the interest of better managing the metabolism between economic development and the natural environment that Hardin argued that the most pressing political concern in matters of ecology was the retention of what he called the "commons." Environmental exploitation was always at its worst whenever finite or scarce natural resources were governed by the political logic of the commons, argued Hardin, and thus if protecting our collective natural environment was to become a serious political priority, the foremost task facing the industrialized sectors of the global economy was to enclose the commons wherever they remained open and free.

There is little doubt that Hardin's injunction to enclose the commons has been almost singularly understood as an argument for enhanced economic privatization as the best means

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of protecting finite or scarce natural resources. Appearing as Keynesian welfare-state capitalism was nearing the end of its unusually long and stable period of growth,¹ Hardin's thesis on the ecological unviability of the commons was caught up in a broader sea change in Western intellectual culture in which economic privatization and political individualism were together understood as the best solution to the structural crises besetting a stagnating welfare state system.² "Hardin's fable was taken up by the gathering forces of neo-liberal reaction," writes social historian Iain Boal, "and his essay became the 'scientific' foundation of World Bank and IMF policies, viz. enclosure of the commons and the privatization of public property."³ As Boal and countless others attest, Hardin's imperative to enclose the commons in the interest of ecological protection was largely understood as an argument for the congruence of market economics and environmental stewardship in the Lockean tradition: only the efficiencies produced by market competition can compel economic actors to operate with the discipline appropriate to ensure environmental resources are optimally exploited.

In contrast to this predominant interpretation, however, this article argues that not only does Hardin's "The Tragedy of the Commons" fail to provide a very sound argument for economic privatization as the best means of protecting the natural environment—largely because it cannot have been Hardin's intention to have done so—but, more importantly, that it is possible to read "The Tragedy of the Commons" as undermining the very idea that enclosure, in any form, is a sufficient mechanism for avoiding environmental tragedy when economic development rests upon the axiomatic pursuit of limitless growth. In the article's first section, then, I elucidate how the dominant practice of reading "The Tragedy of the Commons" as advocating the congruence of market economics and environmental protection is based on an entirely superficial reading of Hardin's argument, one that fundamentally misunderstands his object of critique. For despite the protestations of many of Hardin's critics, a careful reading of "The Tragedy of the Commons" shows that it is not at all the fact of shared or collective property that raises Hardin's ire, but rather it is the preponderate and even debilitating influence of Adam Smith's theory of markets for managing common resources to which Hardin most strongly objects. By examining the surprisingly inattentive readings of "The Tragedy of the Commons" by some of its more prominent critics, I show that Hardin's injunction to enclose the commons cannot be read as advocating greater economic privatization as the optimal means of protecting the environment, as is usually assumed, but rather his advocacy for enclosing the commons only makes sense when read as a plea for greater public control over scarce and *unowned* resources under conditions in which these resources are exploited by the laws of market economics.

Yet even if the most sensible and even-handed reading of "The Tragedy of the Commons" interprets Hardin's injunction to enclose the commons as advocating a more robust

¹ Thomas Piketty's *Capital in the Twenty-First Century* (Cambridge: Belknap Press, 2014) has extensively documented the anomalous character of the Keynesian period in terms of both economic growth and reduced economic inequality.

² For exegesis of this reactionary intellectual trend, see David Harvey, "Freedom's Just Another Word," in *A Brief History of Neoliberalism* (Oxford: Oxford University Press, 2005).

³ Iain Boal, "Feast and Famine: a Conversation with Iain Boal on Scarcity and Catastrophe," accessed 1 March 2014, <http://www.beyondthecommons.com/boal.html>.

policy of public or collective management of scarce natural resources, this reading is not the most theoretically insightful or powerful aspect of Hardin's article, particularly when considered in light of contemporary climate change and the political obstacles that have hindered attempts to make significant decreases in global carbon emissions. In the second section of this article, then, I argue that shifting the interpretive focus of Hardin's argument away from the predominant object of hermeneutic concern, i.e. *the commons*, and placing it instead on the concept through which Hardin renders the commons an object of urgency or crisis, namely the concept of *tragedy*, effectively transforms "The Tragedy of the Commons" into a political treatise that articulates the problem of environmental degradation not as a function of *property* but rather as a problem of *growth*. By framing the endangered status of the commons as specifically *tragic* in character, Hardin effectively—though perhaps unwittingly—demonstrates that the causal factor imperiling our environmental commons is not the property-status of the commons (or lack thereof) but rather the unquestioned political and economic doctrine guiding both private (market) and public (state) economic actors alike, namely the doctrine of limitless growth. Reading "The Tragedy of the Commons" in this revised fashion not only underscores the growing limitations of Westphalian-based political organization when faced with a truly global environmental crisis that doesn't respect political borders or property lines, but it also reinforces the dawning recognition that climate change cannot be averted by technical procedure or scientific marvel alone. For while the capitalistic imperative for limitless economic growth has undoubtedly produced much material splendor in the Western world over the past few centuries, the expansion of the world market to all corners of globe means that avoiding the truly dystopian scenarios that will accompany a six degree rise in planetary temperature will require a more substantive response than carbon trading schemes or storage technologies can possibly provide. Averting the worst outcomes of climate change demands a profound, even radical, re-assessment of some of the most sacrosanct political and economic norms that have rendered Western capitalism such a powerful engine for producing material abundance, but so unwieldy a machine for prioritizing any other human end. It is thus toward a greater recognition of the fundamentally political (rather than technical) dimension of the contemporary climate crisis that this revised reading of the "Tragedy of the Commons" is ultimately directed.⁴

⁴ The objection might be raised, from the outset, as to whether rehabilitating or re-interpreting Hardin's article is a worthwhile pursuit at all given the increasing volume of more recent and better-researched scholarship that documents the failures of self-interested, market approaches to environmental protection. While such current scholarship may seem to render Hardin's critique somewhat antiquated in different respects, Hardin's text, in its standard and—as I argue—fallacious interpretation, nonetheless still functions as an important framing device for much contemporary scholarship on climate change, particularly those accounts that promote the market as the best mechanism for decreasing planetary carbon emissions. As economists Eric A. Posner and David Weisbach put it in their somewhat misnamed *Climate Change Justice* (2010), for instance, "climate change is perhaps the most important case of a widespread problem known as the tragedy of the commons" (42). That the standard interpretation of "The Tragedy of the Commons" functions as the underlying conceptual basis for Posner and Weisbach's conclusion that "reliance on market-based mechanisms in the climate context is likely to be especially important" (44) is just one example of the influence that the standard reading of Hardin's article still exerts in today's intellectual culture, and demonstrates the validity and

Misreading the Tragedy of the Commons

Before it is possible to read “The Tragedy of the Commons” as a treatise that challenges the almost unquestionable belief in the economic necessity of limitless growth, it is first necessary to gain a more accurate understanding of the intended object of Hardin’s criticism, particularly given the widespread difficulty many of his readers seem to experience in this matter. For while the term “commons” is indeed prominent in the article’s title, a careful reading of Hardin’s thesis reveals that it is not the commons as such to which Hardin objects, but rather the economic system that, by the mid-20th century, began to imperil the planet’s scarce natural resources. At the outset of the article, however, Hardin’s principal concern is not *economic*, strictly speaking, but rather *demographic*, and the dilemma he poses is paradigmatically Malthusian in character: given the growing ecological consensus that the planet’s natural resources are finite or limited, Hardin asserts dire implications for unrestrained population growth given the almost universally accepted fact that a “finite world can support only a finite population.”⁵ For Hardin, the Benthamite injunction to produce the greatest good for the greatest number runs into an absolute limit in ecology: a global population that continues to increase at what Malthus described as a geometric pace upon a planet of finite resources will sooner or later reach an apex after which collective wealth and well-being (to the extent that well-being is a function of material wealth) will enter into sustained decline. As it is obvious, given these parameters, that the maximum population cannot be considered the optimum population, the first obstacle Hardin attempts to surmount is that of designating an “optimum population”—or translated into the language of political economy, the first task Hardin sets for himself is to calculate some idea of an optimum or appropriate distribution of wealth for a particular (though in this case global) population.

As soon as Hardin evokes this question, however, he recognizes the inherent difficulty in determining an optimum distribution of wealth given that the notion of the “good,” which necessarily informs the concept of the optimum, is multitudinously relative: “to one person it is wilderness, to another it is ski lodges for thousands. To one it is estuaries to nourish ducks for hunters to shoot; to another it is factory land.”⁶ Given the difficulty—or rather impossibility—of determining an optimum distribution of wealth through technical procedure alone, Hardin shelves this task and moves on to the more modest—which is to say potentially soluble—problem of identifying those political dynamics that constitute the greatest obstacles hindering even an approximate formulation of the problem of population growth, economic development and resource depletion. And for Hardin, the first and foremost of these political obstacles is the persistence of what he calls “the commons.”

While it is sometimes difficult to discern the precise contours of Hardin’s notion of the commons—and this difficulty, as I discuss in greater detail below, is the most probable source of the article’s consistent misinterpretation—a careful reading of Hardin’s article reveals that the defining aspect of his particular notion of the commons is the condition of *infinitude*, or more precisely *perceived infinitude*: a commons, for Hardin, is fundamentally characterized by

utility of challenging the long-held consensus about just what, in fact, is being critiqued in Hardin’s still influential article.

⁵ Garrett Hardin, “The Tragedy of the Commons,” *Science*, 162 (1968): 1243.

⁶ *Ibid.*, 1243.

the perception that the common resource in question is for all pragmatic purposes infinite, thus rendering either auto- or heteronomous checks on any actor's exploitative relation to said commons unnecessary or even nonsensical. By constructing the commons as a space of (mis)perceived infinitude, it becomes clear that one of the principal motivating factors behind Hardin's critique is his recognition of an increasingly dangerous disconnect between scientific knowledge and policy formation: while the ecological sciences increasingly assert the finite and even fragile nature of the planet's abundance, national and regional actors continue to operate as if nature's largesse will never end. As Hardin exemplifies, "maritime nations still respond automatically to the shibboleth of the 'freedom of the seas.' Professing to believe in the 'inexhaustible resources of the oceans,' they bring species after species of fish and whales closer to extinction."⁷

Construing the commons as an infinite resource misperceived is what ultimately leads Hardin to invoke the (in)famous parable from which the larger article gains its title. Drawn from a somewhat obscure demographic pamphlet titled *Two Lectures on the Checks to Population* (1833) by British political economist and amateur mathematician William Foster Lloyd, the parable of the commons depicts a scenario in which competing animal herders operate discretely upon a common pasture without the possibility—or at least without the occurrence—of mutual communication, such that the ruin of the common pasture, as well as the ruin of the fortunes of the herders as a whole, issues from their collective misperception of the pasture as an infinite resource. As Hardin paraphrases:

Picture a pasture open to all. It is to be expected that each herdsman will try to keep as many cattle as possible on the commons ... The rational herdsman concludes that the only sensible course for him to pursue is to add another animal to his herd. And another and another ... But this is the conclusion reached by each and every rational herdsman sharing a commons. Therein lies 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 own best interest in a society that believes in the freedom of the commons. Freedom in a commons brings ruin to all.⁸

The logic of this scenario is not overly difficult to follow and is entirely consistent with Hardin's reservations about the commons as a misperceived space of infinite abundance. Yet almost universally, criticism of Hardin's article responds to this scenario as if it was intended to buttress a claim for the economic unviability of common or shared property in all contexts. These criticisms tend to fixate on the literal wording of the parable without considering the larger theoretical context to which the parable was meant to speak, and criticisms tend to make two distinct but contiguous claims with respect to Hardin's argument: (1) the dynamic manifest in the parable of the herdsman has no basis in the historical record and (2) the premise of the parable—the rational self-interest of the herdsman—is identical to its end or conclusion thus rendering Hardin's reasoning tautological.

John Frow's essay "Information as Gift and Commodity" provides an exemplary instance of the first standard critique of Hardin's thesis by way of an account of intensifying attempts by Western actors, public and private alike, to impose intellectual property rights

⁷ Hardin, "The Tragedy of the Commons," 1244.

⁸ Ibid.

upon traditional systems of agricultural production in the post-colonial South. “[While] nature, like language, has been traditionally classified as a *res communis* which can have no human author,” writes Frow, “patent law has been shifting toward a more expansive definition of its proper subject matter, and in particular towards a rather different understanding of that ‘common’ realm of ‘nature’” in order to better render the natural world subject to patent law.⁹ Frow’s inquiry into the conceptual framework of contemporary intellectual property law shows that the philosophical justification for such endeavours is not a recent development but goes back some distance in the canon of Western political philosophy, most prominently to John Locke’s *Two Treatises on Government* (1689) in which the notion of common property is critiqued on the grounds that it leads to inefficient use of natural resources. Yet whereas Locke’s advocacy for privatization as a strategy to deter wastefulness was qualified by the proviso that enclosure must leave “enough, and as good left in common for others,”¹⁰ Frow observes that “The Tragedy of the Commons” provides a much more powerful argument for contemporary attempts to privatize the natural world insofar as the qualification that tempered Locke’s argument for privatization now functions as the impetus of urgency in Hardin’s text: for the founding premise of Hardin’s intervention, in contrast to Locke’s, is that the commons must be outlawed precisely because there is no longer “enough and as good left in common for others” and therefore we can no longer afford to waste our increasingly limited natural endowment.

Yet as Frow points out, ample historical documentation undermines Locke’s and Hardin’s assumption that property held in common is inherently wasteful. As Frow recounts, agricultural communities in pre-industrial England relied on variegated and often highly complex mechanisms for managing common resources for the benefit of the community as a whole, a scenario that bears little resemblance to Lloyd’s parable of the herdsmen:

[Hardin’s] model is that of unrestrained competition between individuals without common interest or the capacity to negotiate shared rights of access. Set up in these terms, however, the model misses the historically interesting questions of the social regulation of the commons—in the specific and plural use of that world: the ways in which scarce resources were allocated by means of complex manorial customs governing rights and limitations on rights.¹¹

Drawing on E.P. Thompson’s historical research on manorial institutions in English agrarian communities,¹² Frow asserts that Hardin’s parable fails to consider the degree to which “commoners themselves were not without common sense” when it came to shared land and other resources, and that the actual destruction of the agricultural commons in England was not the result of its status as common property but rather “had to do with the pressures of capitalist agriculture upon coincident use-rights, together with the sheer political power of the

⁹ John Frow, “Information as Gift and Commodity,” *New Left Review* 1, no. 219, September-October (1996): 92-93.

¹⁰ John Locke, *Two Treatises of Government* (Cambridge: Cambridge University Press, 1960), 315.

¹¹ Frow, “Information as Gift and Commodity,” 99-100.

¹² E.P. Thompson, *Customs in Common* (New York: The New Press, 1993).

landholding class.”¹³ As Frow thus asserts, Hardin’s parable more closely resembles the dynamics of market capitalism than it does pre-capitalist modes of agrarian organization and therefore does little to undermine the case for common property.

While Frow is not incorrect in the historical counterevidence he provides, nor in recognizing that it was the transition from a feudal to capitalist mode of production in England that depleted the English commons, what escapes his attention—and the attention of the vast majority of those who critique Hardin on this point—is how unlikely it is that Hardin’s use of Lloyd’s parable of the commons was intended to illustrate the dynamics of agrarian or pre-capitalist modes of production. For while it is beyond doubt that Hardin’s evocation of Lloyd’s parable is the preponderant object of criticism in relation to the larger article, criticism of Hardin’s parable almost never considers the paragraph that precedes it and which provides the crucial frame of reference for understanding the parable’s utility within Hardin’s larger argument. After recognizing the obvious difficulties that inhere in any attempt to define an optimum relationship between population and production (as discussed above), Hardin argues that even a modest beginning to this problem is insurmountable so long as Western intellectualism holds fast to the highly questionable doctrine that individual self-interest begets, in aggregate, the best outcomes for the collective. “We can make little progress in working toward optimum population size,” Hardin writes, “until we explicitly exorcize the spirit of Adam Smith in the field of practical demography.”¹⁴ In other words, the précis to Hardin’s evocation of Lloyd’s parable is the contemporary necessity, indeed urgency, of recognizing that despite the near orthodoxy of Smith’s ideas about socio-economic organization, a political doctrine in which society is only conceptualized as an aggregation of discrete individuals acting in a self-interested fashion can no longer form the basis of social and economic policy on a planet of finite and dwindling natural resources:

In economic affairs, *The Wealth of Nations* (1776) popularized the ‘invisible hand’ ... [and] contributed to a dominant tendency of thought that has ever since interfered with positive action based on rational analysis, namely, the tendency to assume that decisions reached individually will, in fact, be the best decisions for the entire society. If this assumption is correct it justifies our continuance of our present policy of laissez-faire in reproduction¹⁵ ... If the assumption is not correct, we need to re-examine our individual freedoms to see which ones are defensible.¹⁶

¹³ Frow, “Information as Gift and Commodity,” 100.

¹⁴ Hardin, “The Tragedy of the Commons,” 1244.

¹⁵ While one might observe in this passage that Hardin laments the legacy of Adam Smith in matters of *reproduction* specifically—which is to say biological procreation and population morphology—the parable of the commons that Hardin subsequently evokes has nothing whatsoever to do with biological reproduction but rather illustrates and critiques the dynamics of market economics in general. And given the subsequent examples of the commons Hardin evokes throughout later sections of the article, as well as the general tenor of his editorial, there can be little doubt that his critique of Smith is not confined to biological reproduction but applies much more broadly to matters of economic production generally understood.

¹⁶ Hardin, “The Tragedy of the Commons,” 1244.

It is precisely in the spirit of re-examining of our individual freedoms that Hardin, *immediately following this passage*, evokes Lloyd's scenario of the commons. Viewed in its proper context, it seems highly unlikely that the utility of Lloyd's parable for Hardin's argument could have been its felicity for representing the socio-economic dynamics of pre-capitalist England (or anywhere else) given the historicity of the economic doctrine that Hardin aims to critique, namely Smith's theory of the invisible hand. Rather it is much more likely that the utility of the parable for Hardin's argument is its capacity to offer a simplified analog that illustrates the latent dangers of an economic and political doctrine in which myopic self-interest forms the basis of social policy. When at the beginning of the parable Hardin states that "it is to be expected that each herdsman will try to keep as many cattle as possible on the commons," and that "each man is locked into a *system* that compels him to increase his herd without limit—in a world that is limited," it is likewise difficult to understand this premise as an attempt by Hardin to describe the behavior of agricultural producers in pre-capitalist pastoral society, since this would constitute a rather poor basis for critiquing Smith's theory of markets. Rather, given the context in which Hardin evokes the parable of the commons, the only interpretation that makes sense is that the herdsmen are meant to represent normative actors functioning within a market economy, who, as Hardin obviously understands, are systemically compelled to behave *as if* they inhabit a commons, since the virtue of their actions according to Smith and his adherents lies precisely in their willed ignorance of what is going on around them. It is for this reason that Hardin does not nominate the actors in the scenario as simply "herdsmen," but rather "*rational* herdsmen," since the purpose of the analogy is to highlight the inherent dangers of an economic rationale that systematically compels the herdsmen to deplete their environmental surroundings unless otherwise coerced. A critique that reads Hardin's parable as if it were designed to invalidate all systems of production *other than* market economies can only be sustained by isolating the parable from its intended context and then conducting an interpretation based on the superficial associations seated at the most literal level of the text.

Situating Hardin's invocation of Lloyd's parable in its proper context also invalidates the second most common criticism of Hardin's article, namely that Hardin was asserting that the self-interested behavior praised by orthodox economists is the defining or dominant feature of human nature as such. Writing in the *Socialist Voice*, Ian Angus makes the common but erroneous assumption that Hardin's thesis is simply that "communities that share resources inevitably pave the way for their own destruction."¹⁷ Angus, like Frow, counters this perceived claim by asserting the existence of a rich documentary record, ranging from Friedrich Engel's account of the system of the "mark" in agrarian Germany¹⁸ to more recent studies of agricultural societies in the contemporary global South, all of which support the conclusion that actually-existing communities that rely or relied on communal resources always develop

¹⁷ Ian Angus, "The Myth of The Tragedy of the Commons," *The Socialist Voice*, accessed 1 March 2014, <http://www.socialistvoice.ca/?p=316>.

¹⁸ The "mark" was a form of communal agrarian-organization that, according to Friedrich Engels, "served as the basis and as the type of all public institutions, and permeated the whole of public life, not only in Germany, but also in the north of France, England and Scandinavia" from the decline of Roman hegemony in Europe until the late medieval era. See the appendix to Friedrich Engels, *Socialism: Utopian and Scientific* (London: George Allen & Unwin, 1944), 89.

some method of self-regulation to protect their shared resources from the unfortunate fate that befell Hardin's herdsman.¹⁹ Yet the crux of Angus' counterargument is not ultimately empirical in nature but instead proceeds by revealing a fatal flaw in Hardin's reasoning. For Angus, the initial premise of Hardin's thought experiment is identical to its end thus rendering the analogy tautological and rigged to guarantee the desired result:

Hardin's conclusion was predetermined by his assumptions. 'It is to be expected' that each herdsman will try to maximize the size of the herd—and each one does exactly that. It's a circular argument that proves nothing ... Hardin assumed that human nature is selfish and unchanging and that society is just an assemblage of self-interested individuals who don't care about the impact of their actions on the community. The same idea, explicitly or implicitly, is a fundamental component of mainstream (i.e., pro-capitalist) economic theory ... In short, Hardin didn't describe the behaviour of herdsman in pre-capitalist farming communities—he described the behaviour of *capitalists operating in a capitalist economy*. The universal human nature that he claimed would always destroy common resources is actually the profit-driven 'grow or die' behaviour of corporations.²⁰

Of course Angus is quite right that Hardin's parable does not depict the behavior of herdsman in pre-capitalist farming communities, but rather that of capitalists operating in a capitalist economy (as this seems to have been the intended utility of the parable in the first place). What is curious is that Angus reads Hardin as attempting to solidify a view of human nature as universally and unchangingly self-interested. Were this Hardin's intention, we should hardly expect him to express the need to "explicitly exorcise the spirit of Adam Smith in the field of practical demography," given that Smith's ideas concerning normative behavior in a market economy would have been virtually identical to those Hardin is supposed to have held and propagated by way of his article. Indeed, when Hardin applies the lesson of the parable to the modern problem of industrial pollution, for example, it is abundantly clear that he was not interested in praising market behavior, much less rendering it synonymous with human nature itself. "The *rational* man," writes Hardin (again employing this telling doctrinal adjective), "finds that his share of the cost of the wastes he discharges into the commons is less than the cost of purifying his wastes before releasing them" and thus we become "locked into a system of 'fouling our own nest,' so long as we behave only as independent, rational, free-enterprisers."²¹ Again it is only by interpreting the parable of the rational herdsman in complete isolation from the rest of the text that it is possible to draw the conclusion that Hardin intended to naturalize Smith's assertions about the virtues of market economics. Once consideration of Hardin's parable proceeds in light of the paragraph on Smith that precedes it, however, we find that what Angus and the majority of Hardin's critics had taken to be the end or purpose of

¹⁹ The most comprehensive scholarship on the propensity of communities to self-regulate under conditions of finite resources is found in the work of Elinor Ostrom. While Ostrom is certainly renowned for her work on viability of the commons in environmental scholarship, she nonetheless accepts the standard interpretation of Hardin's influential article. See, for example, *Governing the Commons: The Evolution of Institutions for Collective Action* (Cambridge: Cambridge University Press, 1990).

²⁰ Angus, <http://www.socialistvoice.ca/?p=316>.

²¹ Hardin, "The Tragedy of the Commons," 1243, emphasis added.

Hardin's article—i.e. touting the virtues of self-interested, market behavior—is in fact *the object of Hardin's critique*. When Hardin famously asserted at the conclusion of the parable that “freedom in a commons brings ruin to all,” the immediate reaction of the vast majority of his critics has been to simply assume that Hardin was arguing that common or shared property is inherently ruinous because human nature is inexorably selfish. However, a careful reading reveals that it is not at all the mere fact of common or shared property that Hardin rejects, but rather the institution of *freedom in a commons* that is the prime object of his criticism. And as demonstrated above, the specific concept of freedom to which Hardin refers here has nothing whatsoever to do with popular or communal autonomy, but rather designates that very specific form of freedom justified by Adam Smith's theory of the invisible hand: the freedom to pursue one's self-interest without any regard to its social consequences because the market will always ensure that isolated individual decisions produce social virtue.

While there should be no doubt that the commons is not the direct object of criticism in “The Tragedy of the Commons,” Hardin does, however, seem to suggest that enclosure offers the best policy mechanism for protecting the commons, though the type of enclosure that Hardin prefers is ambiguous within the text. Generally speaking, the scholarly consensus on this matter articulates Hardin's advocacy for enclosure as conforming to what is referred to as *property absolutism*²²: according to this position, the principal political defect of the commons is simply that it is unowned or unmanaged *tout court*, and thus the remedy to the problem, for the property absolutist, is simply to enclose and endow the commons with property status, be it private, public or some combination of the two. It is thus a function of the ambiguity inherent to the property absolutist position that “The Tragedy of the Commons” can be read—and has almost universally been read—as advocating the congruence of market economics and economic stewardship in the Lockean tradition. And indeed Hardin seems to propose as much when he asserts “we might sell [the commons] off as private property” as a means of coercing those intent on depleting the commons for private gain.²³ Yet even if privatization of the commons technically qualifies as an adequate solution according to the specific parameters of the property absolutist position, privatization is far from the obvious conclusion that any careful reader of Hardin's article would reasonably draw. For while advocates of economic privatization as a means of environmental protection often underscore the single sentence in which Hardin's argues we might “sell [the commons] off as private property,” this rather off-handed suggestion is, in fact, little more than an island of market rationale amidst a sea of lamentations that bespeak the debilitating effects of Smith's influence in matters of public

²² For a more detailed discussion of this concept in relation to environmental protection, see John M. Meyer, “The Concept of Private Property and the Limits of the Environmental Imagination,” *Political Theory* 37, no. 1, February (2009): 99-127.

²³ In fact Hardin later admitted in a reprise of his original article that “the weightiest mistake in my synthesizing paper was the omission of the modifying adjective ‘unmanaged’ ... a ‘managed commons’ describes either socialism or the privatism of free enterprise,” http://www.garretthardinsociety.org/articles/art_extension_tragedy_commons.html.

policy.²⁴ If one carefully considers Hardin's argument in its entirety, rather than simply selecting single assertions out of context, what becomes apparent is that environmental degradation, for Hardin, is almost singularly the result of the preponderate influence of unrestrained economic production and, reciprocally, the comparative weakness—or non-existence—of mechanisms of collective oversight and regulation for limiting exploitative commercial interests. "Coercion is a dirty word to most liberals," Hardin argues—speaking specifically of the classical variety reared in the tradition of Locke and Smith—yet greater coercion, by which Hardin means the curtailment of the specific kind of freedom permitted by Smith's invisible hand, is nevertheless necessary to forestall the ruin that unabashed self-interest in matters of production threatens to produce:

Every new enclosure of the commons involves the infringement of somebody's personal liberty. Infringements made in the distant past are accepted because no contemporary complains of a loss. It is the newly proposed infringements that we vigorously oppose; cries of "rights" and "freedom" fill the air. But what does "freedom" mean? When men mutually agreed to pass laws against robbing, mankind became more free, not less so. Individuals locked into the logic of the commons are free only to bring on universal ruin once they see the necessity of mutual coercion, and they become free to pursue other goals. I believe it was Hegel who said, "Freedom is the recognition of necessity."²⁵

As throughout Hardin's article, the author's choice of words seems to have exacted a surprisingly distorting influence upon his readers and their interpretations. In this respect, then, the most severe flaw in Hardin's article lies not in its reasoning, logic or historical scope, but is seated squarely in its rhetorical execution. For there can be little doubt that the astonishingly widespread and remarkably consistent misinterpretation of Hardin's argument is ultimately rooted in Hardin's idiomatic understanding and use of the term "commons." For Hardin, in this article at least, a commons denotes any resource that is perceived to be infinite and is thereby logically exempt from the protective benefits that different forms of ownership provides. For Hardin's critics, on the other hand, a commons generally refers to a resource that is collectively managed and whose exploitation or use is governed by norms that are designed to function very differently from those that govern the market system as a whole. Accordingly, then, Hardin's injunction to "enclose ... the commons" is meant to communicate the urgent necessity of protecting common resources—i.e. resources that had once been considered infinite—from the spread and intensification of industrial capitalism. Unfortunately, Hardin failed to appreciate the extent to which this phrase also evokes the enclosure movement in 18th century England, a market-driven process of private appropriation and exploitation that produced the very results Hardin laments and warns against. The result of this rhetorical dissonance has been the consistent interpretation that Hardin advocated the extension of markets into the natural environment when the central concern of his article was precisely the opposite: rather than celebrating markets, he deplored the seeming inability to engage in what he referred to as "positive action based on rational analysis" because of the long-standing

²⁴ Furthermore, this single line that references "selling off as private property" is suggested solely as an option for protecting the National Park system in the United States, and thus does not provide a particularly strong case for privatization as a solution to the commons generally speaking.

²⁵ Hardin, "The Tragedy of the Commons," 1248.

orthodoxy that tells us that individual, self-interested decisions always produce optimum social outcomes.

Yet even if a careful reading of the article demonstrates that Hardin advocated a more robust program of collective oversight when it came to shared resources, the political implications of Hardin's brief treatise is not, however, exhausted with this reading. For while greater collective regulation seems to be the most obvious policy alternative Hardin sought to communicate in his influential text, the conceptual architecture through which Hardin renders the commons an *object of crisis* suggests an alternative, and more radical, solution. By shifting interpretive emphasis away from the concept of the *commons* and onto the concept of *tragedy*, I argue in the next section that it is possible to read Hardin's article as compelling the abandonment of property absolutism as a viable solution to the tragedy of the commons entirely, insofar as property absolutism amounts to a mere *technical* solution that, as Hardin goes to some length to explicate in the article, must be classified as insufficient given the specific character of the dilemma he poses. In other words, by describing the predicament of the commons as specifically *tragic* in nature, Hardin compels the realization, whatever he may have intended, that no amount of modification to the property status of the commons will, in the end, be sufficient to avoid its depletion so long as the dominant rationale that imperiled the commons to begin with remains a fixed and unalterable variable. It is in this respect that "The Tragedy of the Commons" is not really about the commons at all, but is more fundamentally about the unquestionable economic rationale of limitless growth.

The Tragedy of Limitless Growth

It was not by accident that Hardin chose to articulate the fate of the commons using the concept of tragedy. Drawing from a definition provided by philosopher Alfred North Whitehead, Hardin observes that the "essence of dramatic tragedy is not unhappiness. It resides in the solemnity of the remorseless working of things."²⁶ What is essential to tragedy as a narrative form, as Hardin sought to stress, is not therefore the mere occurrence of a calamitous outcome, but rather the foreboding knowledge that things could not have been otherwise. Hardin's use of Whitehead's definition is thus entirely consistent with the more historically influential treatment of tragedy provided in Aristotle's *Poetics*, in which Aristotle places the same stress on the *inevitability* of the tragic outcome. It is not the mere conclusion of the narrative that "is most important of all," argues Aristotle, but rather "the structure of the incidents" which constitutes the "first principle" and "the soul of the tragedy."²⁷ For Aristotle, the outcome of the narrative must "follow as cause and effect" rather than proceed by mere chance, such that "the tragic wonder will then be greater than if [the events] happened of themselves or by accident, for even coincidences are most striking when they have an air of design."²⁸

That the conclusion of dramatic tragedy should be understood as *propter hoc* rather than simply *post hoc* is such that tragedy is perhaps the only literary genre in which the

²⁶ Alfred North Whitehead, *Science and the Modern World* (Mentor: New York, 1948), 17. Cited by Hardin, "The Tragedy of the Commons," 1245.

²⁷ Aristotle, *Poetics* (New York: Barnes and Noble Classics, 2005), 19, 20.

²⁸ *Ibid.*, 29.

narrative is actually *enhanced* by disclosing its conclusion from the outset. Referencing Euripides' narrative innovation of the *prologue*, Friedrich Nietzsche suggests that "for a person to appear at the outset of the play, telling us who he is, what precedes the action, what has happened so far, even what will happen in the course of the play, would be condemned by a modern playwright as willful, inexcusable abandonment of the effect of suspense."²⁹ Yet it is precisely the abandonment of suspense and the willed disclosure of things to come that permits the audience to experience the full pathos of fear and pity characteristic of dramatic tragedy. "The effect of tragedy," observes Nietzsche, "never depended on epic suspense, on a fascinating uncertainty as to what is to happen now and afterward, but rather on the great rhetorical-lyrical scenes in which the passion and dialectic of the protagonist swelled to a broad and powerful current."³⁰ In other words, dramatic tragedy is only truly compelling, only truly fearful, when it is void of suspense and refrains from keeping its audience in a state of narrative ignorance. "Fear and pity may be aroused by spectacular means," writes Aristotle on this same point, but he recognizes that the best tragedies always elicit this response by virtue of "the inner structure of the piece, which is the better way, and indicates a superior poet ... Those who employ spectacular means to create a sense not of the terrible but of the monstrous are strangers to the purpose of tragedy."³¹

Yet if the inevitability of the narrative's conclusion is the defining *structural* feature of dramatic tragedy, what allows the narrative to generate the greatest sense of fear and pity in its audience is its capacity for housing an utterly *rational* content within its structure of inevitability. "Within the action there must be nothing irrational," argues Aristotle once more, "if the irrational cannot be excluded, it should be outside the scope of the tragedy."³² For while it is not entirely difficult to elicit a sentiment like pity by virtue of the mere occurrence of calamitous outcome—in the sense that one might feel pity for any character to whom random chance has dealt a bad hand—what allows tragedy to produce *fear* in the audience is the recognition that the protagonist committed no errors, yet tragedy ensued nonetheless. Tragic fear, then, has nothing whatsoever to do with the kind of cheap fright one experiences when watching modern horror cinema which, for instance, is a kind of fear Aristotle would surely classify as both spectacular and monstrous, but certainly not tragic. Rather, the fear produced by tragedy comes from a very different source than mere fright: it comes from the audience's grim realization that they would have likely acted in the same fashion as the protagonist and would have met the same dreadful and seemingly unavoidable end. What makes the outcome truly tragic, and hence truly fearful, is the recognition that it was precisely rationality itself that permitted events to unfold as cause and effect and produce the inevitably tragic result.

It is by recognizing the importance of rationality for producing tragic outcome that "The Tragedy of the Commons" offers a much more substantive critique of the contemporary political and economic order than anything provided within the ambit of property absolutism. Speaking directly to the central hermeneutic of the article, there can be little doubt that Hardin intends his readers to interpret Lloyd's parable of the herdsmen as a form of dramatic tragedy,

²⁹ Friedrich Nietzsche, *The Birth of Tragedy*, trans. Walter Kaufman (New York: Modern Library, 1968), 84.

³⁰ *Ibid.*, 84.

³¹ Aristotle, *Poetics*, 37.

³² *Ibid.*, 45.

or at least as a scenario whose political significance should be read through the interpretive lens of tragedy, given that Hardin invokes Whitehead's definition of tragedy just prior to his elicitation of Lloyd's illustrious analog. If we are thus implored to read Lloyd's parable of the herdsmen as both tragic *and* synecdochal of the dangers posed to our collective ecology by myopic economic self-interest, then property absolutism as a solution to the tragedy of the commons is patently insufficient. For property absolutism, which is almost uniformly understood as the policy solution advocated by Hardin, must be classified as merely a *technical* modification insofar as it fails to address the cause-and-effect root that renders the scenario tragic in the first place, namely the rationale of the herdsmen to perpetually increase their herd. And while there are admittedly a great number of political, economic and environmental problems that can be ameliorated by technical solution, it was precisely Hardin's intention in rendering the dilemma of the herdsmen a form, or at least an analog, of tragedy, that it would be understood from the outset as what Hardin refers to as "a class of human problems which can be called 'no technical solution problems.'"³³ According to the terms of the dilemma Hardin provides, a technical solution is defined as "one that requires a change only in the techniques of the natural sciences, demanding little or nothing in the way of change in human values or ideas of morality."³⁴ And while property absolutism obviously falls outside the purview of the natural sciences—though it may certainly be understood as a technique of the political sciences—property absolutism, in whatever form, hardly amounts to a substantive change in "human values or ideas of morality," which Hardin specifically declares as necessary to avoid the tragedy of the commons. Rather, property absolutism, and privatization of the commons more particularly, merely amounts to more of the same kind of limited economic thinking that imperiled the commons in the first place.

Indeed, it is precisely in order to stress the utter insufficiency of any such technical solution that the "Tragedy of the Commons" is usually considered a permutation of the canonical game theoretical scenario known as the *prisoner's dilemma*.³⁵ Developed by mathematicians Merrill Flood and Melvin Dresher in 1950,³⁶ the prisoner's dilemma involves two police suspects under interrogation who are faced with a Faustian bargain: each is offered freedom if they implicate their counterpart—who will then reciprocally receive the maximum sentence—while, on the other hand, each prisoner is also informed that they will both receive a lesser charge, and hence a lesser sentence, if they both stay quiet. Since each prisoner, according to the parameters of the dilemma, is purely self-interested, each concludes that the optimum solution is to implicate the other, and so this is what they both do. Yet since this is the conclusion reached by each rational prisoner, they both end up with a worse outcome than cooperation would have produced. What makes the prisoner's dilemma of such interest within

³³ Hardin, "The Tragedy of the Commons," 1243.

³⁴ *Ibid.*, 1243.

³⁵ As George Klosko puts it, the tragedy of the commons conforms to "an *N*-person prisoner's dilemma." See George Klosko, "Cosmopolitanism, Political Obligation, and the Welfare State," *Political Theory* 37, no. 2, April (2009): 243-265.

³⁶ For an account of the development of prisoner's dilemma and game theory more generally, see William Poundstone, *Prisoner's Dilemma: John Von Neumann, Game Theory and the Puzzle of the Bomb* (New York: Anchor Books, 1993).

the field of game theory is that it offers a scenario in which rationality, defined narrowly in terms of individual self-interest, fails to procure an optimum outcome for even one of the prisoners. The prisoner's dilemma, like the parable of the herdsmen, thus offers a simplified analog that demonstrates the latent dangers of individual self-interest under certain conditions. For it is only by rejecting their perceived self-interest and acting in a cooperative and yet utterly irrational fashion, according to the technical norms of game theory, that the prisoners might avoid the tragic outcome. Thus insofar as Hardin's parable of the herdsmen constitutes an iteration of the prisoner's dilemma, as is the general consensus, then it should be obvious that property absolutism offers an insufficient solution to the dilemma Hardin poses, since altering the property status of the commons does nothing to modify the deterministic rationality of the scenario itself. "Therein lies the tragedy," as Hardin explicitly states on this point, "each man is locked into a system that compels him to increase his herd without limit." Whether examined through the lens of dramatic tragedy or the prisoner's dilemma, altering the property status of the commons is little more than an *ad hoc* technicality that might momentarily mitigate the depletion of the commons, but is unable to ultimately save it from exhaustion as a result of its failure to substantively question or alter the dominant value or ethic that rendered the commons an object of crisis from the beginning.

It is by reading the parable of the herdsmen through the lens of dramatic tragedy (and game theory) that "The Tragedy of the Commons" offers an important critique of the contemporary political impasse involving climate change. In their *Climate Change Justice*, for instance, economists Eric A. Posner and David Weisbach effectively repeat the errors described above by arguing that "any [climate change] treaty must satisfy what we shall call the principle of *International Paretianism*: all states must believe themselves better off by their lights as a result of the climate change treaty."³⁷ Referencing the concept of Pareto efficiency, which describes a state of resource allocation in which benefits accrued by one actor do not negatively affect the position of any others, Posner and Weisbach search for the best technical solution to the problem of climate change without challenging the basic parameters of either global capitalism or the Westphalian geopolitical order, under the guise that a realist or pragmatic approach to the problem of climate change, one which takes self-interest as an axiomatic and inviolable premise, is the only treaty that has a chance of being ratified. "In the entire history of international relations," write Posner and Weisbach, "it is impossible to think of a treaty, based entirely or mainly on ethical ideals, that requires sacrifices or transfers anywhere near the magnitude of those entailed by idealistic climate treaty proposals."³⁸ The position of the authors, then, is that the problem of climate change is too important to demand or expect radical and risky alterations to the structure of international relations or global capitalism as a condition of a climate change treaty. Accordingly, attempts to address global economic inequalities or historical colonial injustices should not be incorporated into any climate change treaty in any substantive sense. "Those who care about distributive justice," as they put it, "could very well subvert a climate change treaty if they insist that the wealth of a state should determine its burdens. A narrow treaty that serves the interests of states is much more likely to be ratified and to survive pressures to cheat as time passes."³⁹

³⁷ Posner and Weisbach, *Climate Change Justice*, 6.

³⁸ *Ibid.*, 180.

³⁹ *Ibid.*, 98.

While there is something to be said for an approach that prioritizes urgency and pragmatism, the flip-side of this approach is that whatever is gained by working within the international economic and political system in terms of expediency might turn out to be insufficient in terms of overall reductions, and the demand that each state or actor must be made better off by a climate change treaty—rather than adopting the position that richer countries might lose some of their comparative global advantage or that all states will have to accept economic losses—might fatally limit the amount of fossil fuels that are left in the ground. In other words, it might simply be the case that the normative demand of sustained and limitless market growth will ultimately turn out to be incompatible with the sacrifices required to avoid disastrous climate change. Yet whichever approach one might personally favour, what should be clear at this point is that if we are inclined to admit that climate change is, in the words of Posner and Weisbach, “the most important case of a widespread problem known as the tragedy of the commons,” then the most important lesson we have to learn from Hardin’s article is that any solution that does not radically alter the self-interested motivations of our global herdsmen is, tragically, doomed to failure. In other words, if climate change is indeed an instance of the tragedy of the commons, then it is precisely what Hardin refers to as “a class of human problems which can be called ‘no technical solution problems.’” Thus labeling climate change an instance of the tragedy of the commons—indeed, as the most important case of such a tragedy confronting the species today—Posner and Weisbach undercut their pragmatist position from the outset: for the tragedy of the commons is by its very nature a dilemma that demands radical solutions, solutions that must necessarily subvert the hegemonic norms of international relations and global capitalism and insist on the implementation of something novel and unprecedented in the history of human affairs.

Of course, radical solutions that seek to overturn the longstanding orthodoxy of universally pursued, limitless economic growth will be no easy matter, for this effectively means challenging a core element of the progressivist ethos that defines the experiment of Western modernity as such. Growth is an idea so entrenched in Western culture that it is difficult to even perceive it as a problem in the first place, never mind imagining an alternative economic model that is not based on indefinite quantitative expansion. As Meadows *et al.* noted in *Limits to Growth* (1973):

The idea that there may be limits to growth is for many people impossible to imagine. Limits are politically unmentionable and economically unthinkable. The culture tends to deny the possibility of limits by placing a profound faith in the powers of technology, the workings of a free market, and the growth of the economy as the solution to all problems, even the problems created by growth.⁴⁰

So sacrosanct is the doctrine of limitless economic growth, as Meadows *et al.* recognize, that we tend to think that the only means of combatting the ecological problems caused by prodigious economic growth is by expanding the very same engine of growth into new areas in

⁴⁰ Donella Meadows, Jorgen Randers and Dennis Meadows, *The Limits to Growth: The 30-Year Update* (Vermont: Chelsea Green Publishing Company, 2004), 203.

the hope that *extension* becomes *inversion*, and that the economic system that warmed our climate can also cool it if just given the necessary space to grow. And as much as this narrative sounds paradoxical from a logical standpoint, it is not difficult to understand its attractiveness from a political perspective. For this narrative offers the possibility of change without change: it offers the possibility of radical or revolutionary transformation of world energy systems without correspondingly demanding that we make any fundamental alteration to the norms by which we have lived in the Western world since the industrial revolution. By displacing the burden of change onto the market, and the marvels of green technology it is tasked with producing, we are deluded into thinking that the climate crisis can be resolved without the need to alter our built environments, patterns of consumption or lifestyles in any substantive way.⁴¹ Yet it is precisely because of the attractiveness of this narrative that it is increasingly important to understand the nature of political inaction on climate change as *tragic*. For tragedy, as narrative form, absolutely thrives on the attempt to proffer technical solutions to a dilemma that in fact has no technical solution. It thrives on the inability of the protagonist to alter the dominant rationality that is driving him or her toward the inevitable abyss, and it thrives on the stubborn refusal to make fundamental change when change is needed most.

In *The Phenomenology of Spirit*, G.W.F. Hegel argued that for a philosophical work, prefatory remarks are not only superfluous but potentially misleading. By attempting to both situate a philosophical work within a particular historical moment and connect it with other works in its field, the preface obscures the fact that the proper element within which philosophy moves is universal truth: by fixing it both spatially and temporally, the preface drags the philosophical work “into extraneous concern” and inhibits us from comprehending “the diversity of philosophical systems as the progressive unfolding of truth” and instead offers a picture of philosophy as “simple disagreements.”⁴² While Hegel may have been correct in the case of philosophy, or at least the kind of philosophy he had in mind, the same cannot be said for “The Tragedy of the Commons.” One would be hard pressed to find a political treatise as prone to misinterpretation as Hardin’s influential article. It seems that the longer one reads “The Tragedy of the Commons” the greater the risk that the dissonance between Hardin’s underlying argument and the specific terms he employs to execute his thesis will exert distorting and even debilitating effects. It would thus seem that the best strategy for reading “The Tragedy of the Commons” is, contra Hegel, to proceed no further than the prefatory remarks, for it is there that Hardin most profoundly articulates the necessity of fundamentally challenging the contemporary political and economic status quo. It is in the prefatory remarks that Hardin asserts, plainly and simply, that the ecological problems facing the species cannot be solved by technical means, but can only be addressed by making a fundamental “change in human values or ideas of morality.” Yet as the article proceeds, it becomes easier and easier to imagine that such a fundamental change merely involves the imposition of public property protections onto the commons or, worse, endowing the commons with the same market logic as has imperiled the commons in the first place. The source of this misapprehension, as I have argued, is that interpretive emphasis has too often been placed on the commons themselves,

⁴¹ For a more in-depth discussion of this narrative of technological salvation, see Imre Szeman, “Blind Faith,” *Policy Options* 35, no. 1, January-February (2014), <http://www.irpp.org/en/po/can-tech-save/>.

⁴² G.W.F. Hegel, *The Phenomenology of Spirit*, trans. A.V. Miller (Oxford: Oxford University Press, 1977), 1-2.

rather than the growth-driven rationale of the economic actors that created the threat to the commons from the start. By shifting the interpretive emphasis away from the commons and onto the tragic behavior of the herdsmen themselves, it becomes clear that the fundamental change in human values and morality necessary to protect the commons demands more than mere enclosure: it demands that we question the wisdom of limitless economic growth as we proceed into an uncertain and dangerous century of climate change.

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