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# Crisis: Capitalism, Economics and the Environment

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# Crisis: Capitalism, Economics and the Environment

## **Abstract**

The basic thesis of this paper is that there is an undeniable tension between maximization of individual welfare and a sustainable and healthy environment in a finite world. Following from this, the further claim is that our current capitalist system of private production and ownership is fundamentally in tension with the environment and should be changed. Without a change in attitude toward our conceptualization of these problems, that is, without contextualizing these problems outside of the market-based solutions and free market solutions, crisis is inevitable. Homo economicus needs to be replaced by homo environmentus.

## **Keywords**

crisis, environment, economics, capitalism, environmentalism, free market

## **Cover Page Footnote**

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Introduction

“Our entire attitude to nature today, our violation of nature, with the help of machines and the unimaginable inventiveness of our technicians and engineers, is hubris” writes Nietzsche in the third book of *Genealogy*, charging us ‘moderns’ with an arrogant and decadent relationship toward nature and natural resources. With the alarming rate of environmental degradation that has occurred within the last two hundred years, especially if measured relative to the history of all human activity *thus far*, one is inclined to think that perhaps he is onto something.

The basic thesis of this paper is that there is an undeniable tension between maximization of individual welfare and a sustainable and healthy environment in a finite world. Following from this, the further claim is that our current capitalist system of private production and ownership is fundamentally in tension with the environment and should be changed. Without a change in attitude toward our conceptualization of these problems, that is, without contextualizing these problems *outside* of the market-based solutions and free market solutions, crisis is inevitable. *Homo economicus* needs to be replaced by *homo environmentus*. The capitalist and private mode of production inherently gives rise to certain structural problems, the outgrowths of which simply cannot be accommodated or dealt with using market means, whether this means free market solutions or solutions that use market-mechanisms. A correlate thesis, and part of the solution of this paper, is to acknowledge that capitalist society and specifically economic science forces us to think in certain ways and conceptualize proposals to crises as ‘acceptable’ or ‘utopian’. This distinction is largely a way for capitalist society to reproduce itself. In this paper, I will be arguing that this kind of acceptability criterion is largely a construction of economic science and once we recognize that it is a construction we can begin to formulate responses that are deemed *outside of the box*. These considerations will be taken up in some detail in the final sections of the paper.

In the second section of the paper, I will talk about the basic presuppositions of the paper. Here, I will sketch out a form of weak economic determinism. In the third section of the paper, I will describe the problem of the tragedy of the commons and how it relates to environmental abuses. In the fourth section of this paper I will briefly summarize and dismiss the arguments put forward by free market environmentalists as viable responses to environmental crises. In the fifth section of the paper, I will make a distinction between two different theoretical models that can be used to characterize different solutions working within a capitalist framework to respond to environmental problems. In the sixth section of the paper, I will sum up the broader theoretical and philosophical problems that are faced when applying free market or market based solutions to environmental problems. In the seventh section of the paper, I will conclude.

## II. Basic presuppositions

A basic presupposition to the arguments and solutions in this paper concerns a claim about human nature itself. I am both assuming and working within a generally social constructivist framework. There are various types of social constructivism but in this paper I am presupposing only a weak form of social constructivism. This view is not in tension with the idea that human beings have ‘essential’ or ‘fixed’ properties, merely that there are at least *some parts* of human beings that are malleable and heavily influenced by external forces (e.g. societal institutions). I also assume that we can *manipulate* external forces in order to influence and cause desirable changes.

A second presupposition concerns values regarding distribution and efficiency. I assume that there must be at least some component of social justice in all our efforts to properly deal with environmental resources. This would mean that it is not morally justifiable to trump distributive concerns with an aim to increase efficiency. The idea that distributive concerns should be taken into account even at the cost of efficiency can be defended on both moral and pragmatic grounds.

### *Economic determinism*

Economic determinism is generally taken to be the position that economic laws and relations govern the structure of society and the nature of our relations themselves. *Prima facie*, the claim is exceptionally strong: it necessitates the causality between the economic aspects of our social reality (such as the modes of production and derivatively the material means of subsistence) and the non-economic aspects (such as our social, political, intellectual, spiritual, etc. lives) *completely*. These claims are generally linked to Marx and Engels.

This kind of strong economic determinism is difficult to defend and in fact is fundamentally untenable with the general proposals in this paper, indeed any proposals at all. Instead, my thesis requires the assumption of a much weaker form of economic determinism that accepts the following:

On aggregate, the general presuppositions, characteristics and attributes of *homo economicus* generally hold true.

The phenomena resulting from the aggregate of human *economic* activity can be and is assessed sufficiently by economic laws and by general economic relationships (supply and demand, so forth).

This assumption, if granted, means that economic laws and relationships become a powerful tool with which to explain certain phenomena without the potentially

destructive commitment<sup>1</sup> to the view that economic laws govern, quite literally, the totality of our social existence (economic and non-economic).<sup>2</sup>

Derivative of the above assumption is the claim that market logic generally holds true under certain conditions. Using economic tools to analyze certain problems will clarify the reasons for why certain phenomena occur within our society *under these very conditions*. For example, it becomes clear that it is not necessarily racist executives who decide to store toxic waste in minority communities around the country (although this is certainly not an impossibility), but rather it is the fact that the poorest communities have lower cost-benefit tradeoff schedules and will thus bear the brunt of an environmental burden at a lower cost than a wealthier community would. *It is an unfortunate fact that the poorest communities are also composed of specific racial categories*: this is by no means *necessarily* the incentive for the decisions to site toxic waste storage at those particular communities, nor is it a particular helpful explanatory conjecture with regard to why the phenomenon occurs. The point here is *independent* of whether we want to conceptualize the disproportionate burdens on colored communities as racism or not, regarding the executives' intentions: instead, we seek to establish that the market logic that led to the distributive structure is the best possible way to explain the phenomena.

### III. Free market environmentalism and the tragedy of the commons

Once the general psychological presuppositions of the economic agent are accepted, which is necessitated by the acceptance of the weak form of economic determinism as discussed above, the problem facing natural resources is one of the tragic commons. This refers to the tendency of natural resources, abundant and freely accessible to all agents, to become depleted or subject to overuse because of individual agents acting rationally and maximizing their respective welfare functions, at times at the cost of the natural resource itself.

The ocean represents one large natural resource which, outside of the limits of sovereign states, is subject to resource use such as fishing, mineral and energy development, shipping and garbage disposal.<sup>3</sup> Outside of territorial limits of sovereign states, there are, at best, weak restrictions on the use of ocean resources which can lead to environmental problems such as pollution and over-fishing. This is the problem of the *tragedy of the commons*.

Consider fishing in communal international waters. Assuming there is a high enough population of fish in a body of international water for a defined number of states to fish sustainably, each country sends a specific number of fishing vessels in order to maximize their respective welfare functions. However, if a specific threshold number of fishing vessels is exceeded by the individual states, over-fishing occurs *in the aggregate* and the natural resource is depleted. Keep in mind these states are rational agents

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<sup>1</sup> The view becomes theoretically destructive by assuming that *the totality of human existence* is determined by an economic determinism which further leads to a kind of fatalism whereby no solutions for any problems can be proposed, since presumably *even these solutions would be subject to the same kind of economic determinism as the initial problems*.

<sup>2</sup> This also amounts to a rejection of 'public-choice theory' that applies the economic tools to the problems that have traditionally been found in the field of political science.

<sup>3</sup> Anderson, Terry L., and Donald Leal. *Free market environmentalism revised edition*. New York: Palgrave., 2001. Print, p.107

attempting to maximize their welfare functions and so sending as many vessels as possible to satisfy an optimal benefit ( $B$ ) is desirable *for each individual state in question*. However, if each state chooses to yield and co-operate, they incur a specified cost ( $C$ ) but also a benefit ( $B$ ). If a state chooses to defect ( $D$ ) from co-operation, it gains maximum benefit  $B$  without cost  $C$ . Consider the following simple<sup>4</sup> payoff matrix:

	S > n choose Y	S < n choose Y
Y	$C + B$	$C$
D	$B$	$0$

This formal representation of the tragic commons is crucial to show the preference orderings necessitated by the kind of rational self-interest that economists generally presuppose.  $S > n$  refers to conditions where the number of states is above the specific threshold  $n$ . Conversely,  $S < n$  refers to the conditions where the number of states is below the specified threshold  $n$ . In this matrix, payoffs are ordered  $B > (C + B) > 0 > C$ . Since cost  $C$  is a negative number (as a cost it detracts from the welfare function of the state), defecting ( $D$ ) dominates yielding and co-operating ( $Y$ ) as the choice for a rational state; the rational state would also prefer that others choose  $Y$  to achieve  $C + B$ . In this way, the state maximizes benefit without incurring cost (this is an example of the ‘free rider’ problem).

The problem is that the costs associated with the exercise of communal property rights are burdened on the *entire community* as opposed to being limited to the person exercising the right. The most rational action will lead all states to defect from co-operation and the result will be over-fishing and depletion of a natural resource. In other words, the most rational action on the part of individuals in a community will result in the most undesirable outcome for the community as a whole: the invisible hand of the market is transformed into an invisible beast consuming resources far quicker than would be desired.

#### IV. Market mechanisms vs. free market solutions

At this point it would be helpful to make a distinction between solutions that utilize market mechanisms and solutions that are free market solutions *in themselves*.

Free market solutions are characterized by a complete commodification of environmental and natural resources by assuming and distributing complete property rights and ownership. Environmental protection under this model is set by the market and achieved by the market. For example, extension of full property rights for fisherpersons, over territorially defined waters, would count as a free market solution to an environmental problem. Private aquacultures (the farming of aquatic organisms) are also an example of fully established property rights.

<sup>4</sup> This payoff matrix I have devised should suffice for our present purposes. It is worthy to note that there are many more complicated payoff matrices that take into account further moves for players in the game. For example, I have not accounted for repeated interactions, or collusion between players, or alternate defecting between players (a more complicated form of collusion) etcetera.

Market mechanisms, by contrast, do not use the market to *set* the ends of environmental protection, but merely use the market as a *means* to achieve generally politically set ends. Individual transferable quotas (ITQs) are an example of utilizing a market mechanism to achieve politically determined ends. Individual quotas are a *de facto* right to catch a specified percentage of an allowable catch set typically by a government agency. ITQs can be bought and sold in a marketplace so that if a fisherperson wishes to increase their fishable percentage of the allowable catch, they can simply buy another fisherperson's ITQ. Note that the individual quota is distinct from a full property right in that the quota is set by a government agency and indeed is fully revocable by the government itself. Thus environmental protection isn't left strictly to market logic under this model but rather government set standards (e.g. a threshold of water contamination that may not be breached) are set and the presumption is that the market is the most efficient way to achieve these standards.<sup>5</sup>

My general thesis is generally antagonistic to both of these kinds solutions. That is not to say that some economic solutions can *always* be disregarded as viable solutions to problems. The point of this paper is to show that economic reductionism forces us to think in certain ways by placing acceptability criteria on proposed solutions that are far too stringent given the kinds of responses that are possible and the extraordinary amount of creativity and human ingenuity that could be employed in problem-solving.

#### V. Arguments for and against free market environmentalism

##### *Argument 1: Tragic commons can be mitigated by quasi or fully established property rights*

The free market solution to the tragic commons is to extend fully realizable, enforceable and transferable property rights to members of the commons so as to internalize the costs of resource use *on the person using the resource*. Extension of property rights thus mitigates the depletion and degradation of the natural resource *without* the theoretical cost of severely compromising the ingrained and necessary psychological constitution of the *homo economicus* agent that is required for markets to work efficiently (I.e. without violating the 'self-interest' clause of economic agents, a staple of most neo-classical models). My point here concerns economics as a science in general. Market based solutions are, on the whole, committed to the premise that agents do not act altruistically independent of an overarching self-interest and thus the notion of the extension of property rights gives the economist theoretical tools to tackle the dilemma of the tragic commons *without* violating what seems to be a fundamental tenet of the science.<sup>6</sup>

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<sup>5</sup> This is generally in contrast with a command-and-control model whereby both the ends and means of environmental protection is set and enforced by political ends. Under this model, *no market mechanisms need be utilized*: the presumption in this case is that the market cannot work as efficiently to achieve political ends *as political institutions themselves can*. The thesis of my paper does not necessitate a command-and-control model as a response to the criticisms although such a model may not be in tension with the majority of the arguments presented.

<sup>6</sup> I want to emphasize the theoretical tools that economists must use in order to get around the problems of aggregate self-interested behavior which leads to market failures. The point of this is to highlight that these solutions conjured up by economists rely on the strict logic of the tenets of their science as opposed to being any kind of empirical observations regarding how people *actually* act.

To bring this back to our example, the extension of fishing rights (either in terms of quotas or a territorial right over a specific body of water) allows the internalization of costs associated with fishing activities by either sufficiently limiting the scope of such activity or forcing the brunt of the activity's externalities to be assumed by the person undertaking the activity. In addition, proponents of free market environmentalism argue the existence of such rights allows rights-claims to be undertaken against perpetrators who violate such rights by breaching them through means that may be environmentally unfriendly (i.e. pollution). To wit, with the extension of quasi or fully established property rights, either through individual fishing quotas (IFQs) or territorial rights respectively, incentives are created for individuals to protect their property from environmental degradation. This incentive is posited as being a direct result of an agent's innate self-interest.

For example, consider a fisherperson who owns the rights to a fishery in a particular stream. If another person pollutes the stream, a violation of the property right of the fisherperson has occurred, and he can put in a claim *against* the polluter. This is because the territorial fishing right of the fisherperson creates the incentive for him to take care of *precisely that particular territory* because of what is at stake if his ability to fish (and thus earn a living for himself) is compromised by external factors such as pollution.

### *Response to Argument 1*

There are several problematic aspects of this argument by proponents of free market environmentalism.

It is problematic to assume that an agent's self interest will always lead to the best possible outcome if we pose *more than just efficiency* as an evaluative criterion of the modifier 'best'. To wit, if we include *actual* evaluative criteria for environmental protection (i.e. standard of land or water, levels of biodiversity, and other general context-specific factors) to which our judgments between alternative states of affairs can reflect and analyze before deciding the most optimal situation, surely market approaches may fail because of the *very incentive structure* championed by the proponents of free market environmentalism themselves. A simple example should suffice here. Consider a fisherperson who earns \$100 a week from a fishery he has rights to in stream X. A new company called CP opens a plant near stream X that causes pollution that results in half of the number of fish in the stream that are vital to the fisherperson's livelihood to die. This means that the fisherperson's weekly profit has been cut in half from \$100 to \$50. If CP's profits are sufficient to pay compensation  $c > \$50$ , or even  $c \geq \$50$ , whilst satisfying the relevant cost-benefit and opportunity cost schedules for having the plant operational in the particular area, then the rational decision for CP is to pay the compensation and the rational decision for the fisherperson is to accept this compensation and allow the pollution of the stream. Indeed, in the case of  $c > \$50$ , the fisherperson *actually makes a profit from the pollution of his property*, and the market dictates that *allowing pollution of his stream is the most efficient use of his resource*.

This problem generally arises when the conceptualization of environmental degradation is posited in terms that exclusively refer to the violation of a right. It could be



the case that there are some instances of environmental harm that should be remedied *independent of a person being harmed*.<sup>7</sup> In other words, the nature of harm is not necessarily extrinsic.<sup>8</sup> The idea that CP's pollution of the stream is undesirable or litigable only because it violates the property right of the fisherperson is false: it could be the case that CP's power plant is wrong *because it pollutes a stream, an ecosystem that should not be polluted for the sake of the profitability of a company in and of itself*, or it could be the case that the profitability derived from the efficient allocation of the resource should not take priority over a general obligation to the environment. Whether we accept the first notion that the stream is intrinsically valuable or whether we accept the second notion that short term profitability should not take priority over the well-being of a particular ecosystem or stream (it should be noted that the second notion does not require the first notion), the result remains the same: it is not morally justifiable to allow the stream to be polluted because the market dictates that this is the most efficient allocation of the resource.

A final point worth mentioning is the notion that our system of private ownership of the means of production is actually the *cause* of the tragic commons as opposed to the best solution to it. Private property rights have evolved and have a history that is not independent of historical modes of production and changing social relations; in other words, property rights were not conceived of in a metaphorical state of nature. Once we accept that property rights do not have any especial metaphysical weight, and are a political product of co-operation within a community,<sup>9</sup> we can further appreciate that the kinds of values that ascend in a society characterized by heavy property rights and an almost fanatic belief in private property may in fact be the determinate factors that 'create' rapacious and non-communitarian behavior within agents. To wit, *homo economicus* is not an inevitability but has rather been shaped and molded by various forces over history. A small but relevant example of this is the finding that undergraduate students studying economics are much more likely to act less altruistically after being taught game-theory models that glorify the most selfish action as the most rational action.<sup>10</sup>

The implications of this last consideration are powerful and may be difficult to digest. The general idea is this: our current system of social relations is not set in stone and another way is possible. Another way is not only possible but also highly desirable. This could be achieved through various means: current forms of social conditioning would have to be replaced, censorship and controls over the kinds of educatory materials the young receive would have to be put into place, and incentives structures profoundly reoriented.<sup>11</sup>

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<sup>7</sup> Giving natural objects rights and thus giving third parties the ability to make rights-claims on their behalf could achieve this; Christopher Stone in put this view forward *Should Trees Have Standing?*

<sup>8</sup> For more, see Stone, Christopher D.. *Should trees have standing?: and other essays on law, morals, and the environment*. Dobbs Ferry, N.Y.: Oceana Publications, 1996. Print.

<sup>9</sup> That is to say a 'property right' does not exist independent of a community. Thus co-operation, to some extent *at least*, is required for a fully realizable and enforceable property right to exist.

<sup>10</sup> Frank, R.H., Gilovich, T., & Regan, D.T. (1993). Does studying economics inhibit cooperation? *Journal of Economic Perspectives*, 7, 159 - 171

<sup>11</sup> These new incentive structures would be aimed at creating environmentally friendly obligations and implicit within this reordering would be an almost symbolic move away from commodification of our environment. I will develop this theme later on in the paper.

*Argument 2: The state is no viable alternative*

Proponents of free market environmentalism argue that governmental solutions to environmental problems are inefficient and create new sets of problems whilst being relatively ineffective at solving the initial set of problems. The claim is that the cost of the political solution does not exceed the benefit that may be gained from it, and so in other words, the “political cure is worse than the market disease”.<sup>12</sup>

Using public choice theory, proponents of the free market approach argue that the incentive structure governing political actors means that votes, rather than efficiency, constitute the so-called ‘bottom line’ with political solutions to environmental problems. In other words, since “*incentives affect all human behavior*”<sup>13</sup> and incentives within a political context generally do not necessitate efficient outcomes, political means are not a good way to deal with environmental problems since costs involved in solutions are not necessarily reduced or distributed efficiently, as would happen through a market mechanism. This is because political actors are not forced to properly consider cost-benefit schedules that accompany policy decisions, especially if these policy decisions have temporally far-reaching consequences that outlast their terms in office.

Further, since the political system is so heavily influenced by special interests and the benefits that may be gained by actions effected through political means can be concentrated whilst costs externalized and diffused, efficiency is even further pushed down the list of priorities or objectives to be achieved with regard to the administration of natural resources and questions of environmental protection.<sup>14</sup>

Thus the general criticism is levied at both the political actor’s motivation and ability to deal properly with the problem in question.<sup>15</sup>

*Response to argument 2*

Again, the fundamental faith in and reverence for the efficiency of the market leads to the proponents of free market environmentalism to take an extremely pessimistic view of the possibilities of actions that can be enacted *for the benefit of the public good* by the state.

Indeed, we shouldn’t place the bureaucrat or political actor outside of the psychological makeup that characterizes normal human beings. Incentives *do* affect bureaucrats and political actors in a similar way that they do people outside of the political sphere. However, to posit political actors are simply rent-seeking and self-interested and then judge that their actions will never lead to the most efficient outcomes ignores the very real possibility that state actors, especially those of a freely chosen democratic government, can work toward the public good *even at the cost of efficiency*. Indeed, the picture of the bureaucrat given by proponents of the free-market environmentalism seems more akin to the kinds of bureaucrats that are part of the authoritarian governments that characterize China or African countries, where the

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<sup>12</sup> Spaulding III, William. "Commodification and Its Discontents: Environmentalism and the Promise of Market Incentives." *Stanford Environmental Law Journal* 16 (1997): 293. Print., p. 302

<sup>13</sup> Anderson, Terry, and Donald Leal. "Free Market versus Political Environmentalism." *Harv. J. L. & Pub. Pol'y* 15 (1992): 297-311. Print, p. 301

<sup>14</sup> *Ibid.*

<sup>15</sup> *Ibid.*, p. 302

obligations to the citizenry are limited or compromisable and where the government may not even have been elected by the general public. The picture also assumes that states do not evolve to better deal with problems in a similar way that markets do. This is simply not the case; for example, the United States has evolved to incorporate both regulatory and non-regulatory mechanisms with which to deal with modern day environmental problems in a way that is more efficacious than the ways environmental problems were dealt with twenty years ago.<sup>16</sup>

In addition, the power of the state allows it to deal with certain problems no other actors would be able to. For example, one could certainly argue that there are cases where a more equitable distribution of environmental burdens is more desirable than the most efficient distribution because *efficient distribution of environmental harms tends to concentrate harms in specific areas where cost-benefit tradeoffs are lower (i.e. poor communities) than areas where they are higher (i.e. wealthy communities)*.<sup>17</sup> There are also racial components to the distribution of environmental burdens.<sup>18</sup> The market may be 'color-blind' but it is certainly not 'capital-blind' and there is a correlation between race and poverty in this country for historical reasons. Such problems of inequity should have some standing in our determination of 'what to do?' with regard to environmental problems and their solutions if we accept the basic idea that our obligations of justice to the most vulnerable peoples in our society should not be subject to the whims of the market. The claim is that distributive concerns should take precedence over efficient allocation of resources especially if efficiency put burdens on the already most disadvantaged in our society.<sup>19</sup> Further, surely the state, given its power and scope, is the only actor that is able to deal with such problems of inequity, ironically, *as efficiently as possible*.

*Argument 3: Subjective values can be objectified through the market process*

Market prices are a good way of providing information that people need to make necessary tradeoffs. The fundamental assumption of all free market proposals to deal with environmental degradation of crisis is that our values toward the environment will be realized through the market. In world with ever-evolving technology and subjective values, cost-benefit schedules are also changing and evolving and thus the nature and scope of environmental protections and actions should be left to the market which acts an apt indicator of agents' ever changing preferences.<sup>20</sup> Ever changing preferences and subjective valuation also allow different kinds of valuations to be commensurable on a single scale. Thus aesthetic and moral considerations, indeed, *any* evaluative judgment can be reduced to a single scale and measured against one another. By doing so, the

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<sup>16</sup> Blumm, Michael. "The Fallacies of Free Market Environmentalism." *Harvard Journal of Law and Public Policy* 15 (1992): 371-390. Print.

<sup>17</sup> Sachs, Noah. "The Mescalero Apache and Monitored Retrievable Storage of Spent Nuclear Fuel: A Study in Environmental Ethics ." *Natural Resources Journal* 36 (1996): 641. Print

<sup>18</sup> Ibid.

<sup>19</sup> For more on this, see Frechette, K. S.. *Environmental justice: creating equity, reclaiming democracy*. New York: Oxford University Press, 2002. Print.

<sup>20</sup> Anderson, Terry, and Donald Leal. "Free Market versus Political Environmentalism." *Harv. J. L. & Pub. Pol'y* 15 (1992): 297-311. Print.

world is recognized as interconnected as commensurable values allow proper tradeoffs to be undertaken.<sup>21</sup>

Related to the idea that markets are a good way of objectifying aggregate subjective values is the idea that markets are also more efficient at providing localized information than any other means.<sup>22</sup> Thus the local fisherperson is far more able to judge exactly what tradeoff will sufficiently offset, say, allowing another fisherperson to fish from the same stream that he owns property rights over. This kind of information is simply not there for the faceless bureaucrat conjuring up policies or regulations on the number of people who can fish in a particular stream.

Furthermore, the kinds of localized information provided by markets also unleashes the creative potential of entrepreneurs allowing them to devise ways of further improving the efficiency of their resource. Thus “the stream owner who can devise ways of charging fishermen can internalize the benefits and costs of improving fishing quality.”<sup>23</sup> This is again related to the ability for the market to create commensurable values and thus facilitate difficult tradeoffs.

### *Response to Argument 3*

The claim that markets are a good way to objectify subjective values and that market prices are a good way of gauging information about necessary tradeoffs is contentious to say the least for at least two reasons.

Firstly, implicit within the notion that market prices are a good way of gauging information about making necessary tradeoffs with regard to natural resources and environmental protections is the highly problematic assumption that all natural resources can be commodified and thus priced.<sup>24</sup> The presupposition of this idea is that prices can accurately transform seemingly incommensurable values into commensurable ones, expressed precisely in the idea of the *price* itself. Both of these positions are implausible. Some environmental resources and values are simply incapable of being reduced to market prices because their value is simply independent of a contingent or aggregate “willingness-to-pay”. For example, the value of a view of a mountain can simply not be subject to the kind of economic reductionism that the proponent of free market environmentalism would like to perform.<sup>25</sup> In other words, the idea here is there are some values that cannot be summed up as the aggregate of subjective value. These values may be moral or aesthetic, and may require a more nuanced valuation than simply willingness-to-pay surveys as mechanisms to gauge such valuations. That is not to say subjective valuation needs to be completely thrown out the window: my claim is that the sum of aggregate valuation and willingness-to-pay may not be the best way to evaluate the

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<sup>21</sup> Sagoff, Mark. *Price, principle, and the environment*. Cambridge, UK: Cambridge University Press, 2004. Print.

<sup>22</sup> Anderson, Terry, and Donald Leal. "Free Market versus Political Environmentalism." *Harv. J. L. & Pub. Pol'y* 15 (1992): 297-311. Print.

<sup>23</sup> Ibid.

<sup>24</sup> This idea was put forward comprehensively by Mark Sagoff, *Price, Principle and the Environment*

<sup>25</sup> See Blumm, Michael. "The Fallacies of Free Market Environmentalism." *Harvard Journal of Law and Public Policy* 15 (1992): 371-390. Print., and Sagoff, Mark. *Price, principle, and the environment*. Cambridge, UK: Cambridge University Press, 2004

environment or environmental resources if we take into account other factors such as moral or aesthetic considerations.<sup>26</sup>

Secondly, the idea that market values accurately reflect social values is a delusion. Exchange values represented in the form of price cannot be the limit to the preferences and values that human beings are capable of, again, because certain values are simply irreducible to economic dimensions. The market process itself is discriminatory by its very nature.<sup>27</sup> I remarked before that markets are not *capital-blind*: the implication of this claim is that the extent of environmental protections and the uses of natural resources, if this task is to be handed to the market, is left to those with the most market power, which means the most capital. In such a case, *social values* aren't recognized by the market, but *values of those with the most capital are*. A sharp distinction should be made between the two for it may be the case that a society may have a social value that gives rise to the idea that the values of those with the most capital should not be considered synonymous with the values of the entire society. In other words, a society may value the idea that even those who do not have sufficient market power to effect a real political change *on their own* should still have a politically constructed right to participate and engage in the politics of their particular society and have an input into what values the society recognizes. They are, after all, a constitutive part of the society. In this case, *a social value is in direct tension with a market value*. If left to the market, environmental quality is "limited by the market power of private actors who recognize environmental values (i.e., environmentalists or other activities who can outbid industry for control of resources"<sup>28</sup> and other actors.) By no means is it clear that this would be a desirable state of affairs or that such actors would be able to make the right decisions and tradeoffs with regard to the environmental resource in question. In other words, market based mechanisms assume that those who have acquired or have capital will be able to employ it most efficiently in order to maximize self-interest. However, maximization of self-interest may be fundamentally at odds with our obligations to the environment, and the kinds of tradeoffs that are prompted by the commitment to self-interested maximization of welfare are the kinds of tradeoffs that lead us precisely to the kinds of crises the world is facing today.

Lastly, it is not clear why ingenious or creative responses to environmental problems cannot be undertaken through a communitarian ethic. A response involving the market or a market mechanism does not have a monopoly on creativity. Indeed, thinking

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<sup>26</sup> Sagoff's Kantian standpoint asserting that aesthetic judgments are disinterested need not be invoked here. It could be that case that subjective valuations *could* be the only source of aesthetic valuation but one would need to distinguish the *source* of the aesthetic valuation. It could further be case that there are certain people (e.g. philosophers trained in aesthetics) more properly able to make the kinds of aesthetic judgments that would allow us to properly evaluate the aesthetic value of a particular environment.

<sup>27</sup> Of course not all of the discriminatory effects of the market are *'bad'*. The claim here is somewhat weaker: the idea is that there are at least some forms of discrimination that are a necessary result of the market process, namely the notion that those in higher socioeconomic brackets undeniably have more market power than those in lower socioeconomic brackets, and thus in certain cases what proponents of the free market deem to be transformation of subjective values into objective measurement through the market process is simply a proxy for those with market power to assert their preferences. In certain cases this is desirable; in the evaluation of how we should deal with our environmental resources, *I claim it is not*.

<sup>28</sup> Spaulding III, William. "Commodification and Its Discontents: Environmentalism and the Promise of Market Incentives." *Stanford Environmental Law Journal* 16 (1997): 293. Print.

outside of commodified relationships by definition extends the scope of the kinds of responses that one can come up with to mitigate environmental problems.

## VI. Problems and solutions

### *The structure of the relationship between human being and environment*

The simple rendering of the tragedy of the commons above aptly conceptualizes the nature of an environmental crisis for the purposes of this paper. There is an essential tension between the maximization of individual welfare and sustainable use of resources in a finite world. This seems intuitive enough; but I wish to make a more radical claim following from this: the environmental crises that follow from the tragedy of the commons are not *simply* “externalities” or “market-failures,” but are rather structural problems associated with a capitalist mode of production in general, specifically with an aspect of the capitalist mode of production, namely *commodification*. There are two important considerations that must be clarified to fully illuminate the implications of my claim.

The first consideration is metaphysical. The relational structure of the human being to the environment under a capitalist system is constituted by the concept of ‘ownership,’ that is, the fundamental belief that *anything in nature can become the property of a human being*. Under most forms of free market environmentalism, this relational structure is taken for granted and without question, *but it shouldn’t be*. The Western ideal of human being as sovereign over nature means that nature, and things within nature, are completely subservient to our wants and needs. This position completely disregards the interconnectedness of the world in which we find ourselves and thus undermines the proper nature of our dependency upon the environment. The disregard of the interconnectedness of the world isn’t necessarily a direct product of this asymmetrical power relationship between man and nature. The asymmetrical power relation is justified given our special place within nature that is derived from our power to manipulate nature more so than any other species on earth. What isn’t justified is the *attitude* toward nature employed within this given power relation. My general sentiment is one that finds the arrogance with which we treat nature as a society distasteful. Engels warned nineteenth century capitalists that humans should not be so proud “on account of our human victories over nature. For each such victory nature takes its revenge on us.”<sup>29</sup> Engels’s warning captures precisely the real nature of our relationship with nature: one of asymmetry but *necessarily* one of reciprocity and respect, lest we perish. The crass commodification of our culture means this reciprocity isn’t recognized and respect is undermined for short-term profitability.<sup>30</sup>

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<sup>29</sup> Engels, Friedrich, and Ernest Untermann. *The origin of the family: private property and the state*. Honolulu: University Press of the Pacific, 2001. Print.

<sup>30</sup> “Classical political economy, the social science of the bourgeoisie, in the main examines only social effects of human actions in the fields of production and exchange that are actually intended. This fully corresponds to the social organisation of which it is the theoretical expression. As individual capitalists are engaged in production and exchange for the sake of the immediate profit, only the nearest, most immediate results must first be taken into account. As long as the individual manufacturer or merchant sells a manufactured or purchased commodity with the usual coveted profit, he is satisfied and does not concern himself with what afterwards becomes of the commodity and its purchasers. The same thing applies to the

A broader meta-philosophical point related to the notion of the conception of the capitalist relational structure of the human being to environment is that that the very way we conceive of this relationship, our ‘philosophy’ as narrative with regard to the environment, has far reaching and determinate effects on how we perceive our obligations to the environment. In other words, positing socially constructed behavior as natural behavior (for example, by simply asserting the psychological constitution of *homo economicus* as fact instead of being indicative of a code of behavior that may be the most rational and beneficial under a socially constructed and forced capitalist paradigm) will have profound aggregate effects on the ways human beings act if born into such a world. The illusion is that *this is necessarily the way it must be*.

This brings me to the second point. The reason why the illusion of definiteness exists is because of the incredible amount of power economic science accrues under a capitalist paradigm that it inevitably supports.<sup>31</sup> Economic laws are posited as ‘true’ with little to no empirical corroboration of a lot of economists’ conjectures.<sup>32</sup> Economists also do not acknowledge that most economic propositions that do turn out to be true are contingent upon a particular social regime. Furthermore, it becomes increasingly difficult to talk of our relationship with nature, ways of handling natural resources and the environment, *outside* of the paradigm of ‘commodified relations’.<sup>33</sup> Capitalist society has an incredible ability of accommodating problems *within its own terms*. One example of this is the newest ‘green’ initiatives by various private companies,<sup>34</sup> a phenomenon that represents the convergence of political action and consumption.<sup>35</sup> This all-encompassing accommodation gives economic science and economic solutions to capitalist problems an exclusive claim on sensibility, in other words, a “monopoly on realism”.<sup>36</sup> The crucial point here is to recognize that this monopoly on realism sets up its own acceptability criteria which serve to dictate which solutions are regarded as concrete or able to be carried out properly *in praxis*, and which solutions are simply the musings of an overly intellectual scholar.

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natural effects of the same actions. What cared the Spanish planters in Cuba, who burned down forests on the slopes of the mountains and obtained from the ashes sufficient fertiliser for one generation of very highly profitable coffee trees – what cared they that the heavy tropical rainfall afterwards washed away the unprotected upper stratum of the soil, leaving behind only bare rock!” (Engels, *Dialectic of Nature*). See Engels, Friedrich, Clements Palme Dutt, and J. B. S. Haldane. *Dialectics of nature*, . New York: International Publishers, 1976/1940. Print.

<sup>31</sup> This is a strong claim that would require a separate paper to properly unpack. The idea here is that economic science serves as a justification for the system of relations it supports. One small but important manifestation of this is that the practitioners of economic science are severely compromised between university appointments, government appointments and general scholarship and duties toward economics as an academic discipline itself. There are undoubtedly conflicts of interest for those economists who have influence within these spheres. One fantastic example of this kind of conflict of interest and general corruption is Larry Summers. See <http://chronicle.com/article/Larry-Summersthe/124790/>

<sup>32</sup> Alexander Rosenberg has done a lot of work showing that economists rarely pay attention to empirical corroboration. For more see Rosenberg, Alexander. *Economics: Mathematical politics or science of diminishing returns?*. Chicago [etc.: University of Chicago press, 1992. Print.

<sup>33</sup> Spaulding III, William. "Commodification and Its Discontents: Environmentalism and the Promise of Market Incentives." *Stanford Environmental Law Journal* 16 (1997): 293. Print., p.335

<sup>34</sup> E.g. Starbucks

<sup>35</sup> Zizek, Slavoj. "Nature and Its Discontents." *SubStance* 37 (2008): 37-72. Print.

<sup>36</sup> Spaulding III, William. "Commodification and Its Discontents: Environmentalism and the Promise of Market Incentives." *Stanford Environmental Law Journal* 16 (1997): 293. Print.

My claim isn't that political action *is fundamentally distinct with consumption*, merely that a system that is characterized by a private mode of production has a set of structural problems that cannot be dealt with by the very system of production that was the cause of them. In this case, *fighting fire with fire will mean (perhaps quite literally) the whole world will burn*. To wit, our responses to certain environmental problems should be undertaken outside of the free market and without use of the market-based solutions, even if goals are set politically. *This is possible*.

#### *A note on economics and social constructivism*

In the last section I made a strong metaphysical claim about the construction of *homo economicus*. It will be helpful to discuss this claim further. The 'construction' does not refer to the *concept* of *homo economicus* because presumably it is self-evident that all *concepts* are constructions. The idea here is that *homo economicus*, as a pre-defined entity that exhibits certain sets of behaviors in situations as a result of an assumed psychological constitution (e.g. self-interest, rationality, etcetera), could be the result of intentional human activity as opposed to being a fact *independent* of human activity. The claim is similar to the one that many feminists make about the social construction of gender.<sup>37</sup> This social construction could happen in many ways. For example, perhaps a science (or scientific community) comes up with the concept of '*homo economicus*'. Then the scientific community creates the propositions outlining the adequate psychological attributes for *homo economicus* (e.g. *homo economicus* will be self-interested, *homo economicus* will choose what she prefers, *homo economicus* can rank alternatives, and so on). Now if an individual becomes aware of both (1) this particular psychological constitution is supposed to characterize *them* as a person and (2) this particular psychological constitution is assumed by a powerful 'science' in their particular society, then perhaps some of these psychological considerations may begin to either, consciously or otherwise, take hold for some reason or another (e.g. perhaps it becomes advantageous to exhibit *homo economicus*' behavior because of the social, political or economic institutions created in such a society).

Two crucial points must be underlined here: firstly, such an individual would not have acted as *homo economicus* would have acted *without the knowledge that a particular science or a society conceptualizes that particular individual in that very specific way*. Secondly, given the fact that individuals may act in certain ways is *dependent* on first the conceptual schemata of perhaps a science, group of scientists, or more generally intentional human activity, it could become clear that the fact we may observe aggregate data that supports *homo economicus* as a 'fact' *is also not independent of the intentional human activity*. In other words, *homo economicus* would only exist because of specifiable intentional human activity and therefore *even if* the majority of human beings exhibit the behavior of individuals with psychological constitutions identical to that of *homo economicus*, *this wouldn't be the case* if certain intentional human activity hadn't *caused* them to behave in certain ways.

In Foucauldian terms, 'economics' could be conceptualized as the mode of objectification that plays a transformative role by turning the human being into a subject

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<sup>37</sup> For example, see Butler, Judith. *Gender trouble: feminism and the subversion of identity*. New York: Routledge, 1999. Print.



through the technique of the ‘mode of inquiry’. The science *constitutes* the subject.<sup>38</sup> In Althusserian terms, the subject is created through the process of *interpellation* that occurs at the point where the social scientist *recognizes* the individual as a specific subject.<sup>39</sup> This recognition is the “*hey, you there!*” of the social scientist and the simultaneous decree of subjecthood upon the individual. Althusser’s notion requires the conceptualization of economics not as a science but as an ideology and an economist not as a social scientist but as an ideologist. Although these two notions are similar there are still nuanced differences between them and it is not necessary for us to delve into these differences. Suffice to say that they could both serve as ample theoretical tools to describe the constitution of the subject (*homo economicus*) by an external authority (economic science).

### *One possible solution*

I remarked earlier that there would need to be a reorienting of incentive structures in order to create the kind of social arrangements that would effectively stop the crisis we are currently facing. There are a number of ways of doing this.

Given the fact that the political framework of the United States is a democracy it is clear that the best way to approach this kind of incentive restructuring, short of some kind of violent revolution, would be to undertake *another* kind of revolution using the existing frameworks. This could be a *pedagogical* revolution, or a *cultural* revolution, using a synthesis of empirical evidence and psychological theory in order to inseminate a generation with preference orderings that would be conducive to the well being of society. The existing framework of the education system could be used as a means through the creation of various government programs in order to instill certain practices and create narratives that would either be heavily influential or outright determinate of individual’s preference orderings.

There is yet another constructivist assumption to accept the viability of this solution. The idea here is that moral reasoning can be taught, learned and internalized through cultural or otherwise socialization. Although moral reasoning must have a neurological basis and thus also be at least in some part determined by genetic and other biological factors, there is sufficient room for maneuver to influence the development of moral reasoning as the ability to make the ethical judgment *also* relies heavily upon explicit instruction, punishment and actual experience.<sup>40</sup>

One theory that may be useful for this purpose is psychologist Lawrence Kohlberg’s stages of moral development. Kohlberg’s theory argues that there are specific cognitive developmental stages human beings go through which facilitate a more complex level of moral reasoning with each progressive stage.<sup>41</sup> Kohlberg sets out six progressive stages through which moral reasoning develops. These six stages are split up

<sup>38</sup> Foucault, Michel. "The Subject and Power." *Critical Inquiry* 8.4 (1982): 777 - 795. Print., p.777/778

<sup>39</sup> Althusser, Louis. *Lenin and philosophy, and other essays* . New York: Monthly Review Press, 2001/1971. Print.

<sup>40</sup> *Stages of Ethical Development in Artificial General Intelligence Systems*. Source, *Frontiers in Artificial Intelligence and Applications*; Vol. 171 archive

<sup>41</sup> Kohlberg, Lawrence (1973). "The Claim to Moral Adequacy of a Highest Stage of Moral Judgment". *Journal of Philosophy* (The Journal of Philosophy, Vol. 70, No. 18) 70 (18): 630–646

into three categories: the pre-conventional (stages 1 and 2), conventional (stages 3 and 4), and post-conventional (stages 5 and 6).

The conventional level is the most important for our considerations here. It is here where the subject fulfills 'social roles' and her moral preferences are shaped by not only a *conformity* to an external group (such as family and nation) but also the active *maintenance* and *loyalty* to the moral preferences of such a group. Thus the mode of moral reasoning and valuations tends to reflect or mimic the valuations of a particular group. It is here where the state can employ powerful techniques to educate and socialize certain sets of norms and values that will eventually be determinate of preference orderings that would lead to the kind of preference orderings conducive to a communitarian ethic. This kind of communitarian ethic could take the form of introducing preference orderings that do not value personal well-being over another person's well-being, but nonetheless do not engage in silly self-sacrificing altruistic actions.

Preference orderings that would promote a communitarian ethic could be constructed through a narrative much like the narratives behind property rights have constructed a 'holy naturalness' behind self-interest and a right to property. Narrative here means the kind of 'story-telling' that is used as an explanatory tool for certain theoretical concepts.<sup>42</sup> The idea would be to create a narrative to construct a communitarian ethic that would manifest itself by making the 'rational actors' working under such a system choose the most *sustainable and co-operative action* in a given situation regarding a scarce resource. The co-operative choice in the payoff matrix cited above would be the action that meant all participating players decided to yield so that everyone achieved both a cost *and* a benefit. Carol Rose conceptualizes this as the "I get pretty much, you get pretty much" choice.<sup>43</sup> It should be noted that the actual content or conceptual structure of such a narrative would be difficult to construct but *that is no argument against it*. It should also be noted that the truth-value or truthfulness behind the constructed narrative is irrelevant: our concerns here are strictly pragmatic.

## VII. Conclusion

In conclusion, I have shown that market based mechanisms, whether free market or political, are not able to deal with basic problems *caused* by a capitalist regime. These structural problems will have to be dealt with through other means.

Considering the environmental crises that loom over our heads, such as global warming or a global water shortage, it seems that our attitudes towards the environment will have to drastically change in order to stop further degradation of the planet. I hope to have shown that there is at least plenty of room to maneuver outside of the kinds of commodified relationships that we take to be fixed and essentially part of our society.

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<sup>42</sup> Carol Rose (1990) uses the example of Locke who uses the narrative approach to describe his theory of property rights, starting off in a state of nature, and unfolding over the text in the Second Treatise of Government.

<sup>43</sup> Rose, Carol. "erty as Storytelling: Perspectives from Game Theory, Narrative Theory, Feminist Theory." *Yale J. of Law & Humanities* 2 (1990): 37. Print.

Kohlberg's psychological theory of moral development married with Rose's considerations on narrative theory are one such conceptual framework we could use to create a generation with preference orderings that are not directly antagonistic to the environment. Rampant avarice is not, and need not, be a fundamentally essential human characteristic. Indeed, if we long for a sustainable and healthy life for our species, we must shed ourselves of the illusion that such destructive self-interest is part and parcel of everyday life by recognizing it is both created and sustained by a specific set of arbitrary relations *that can and should be changed*.

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