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Visiting Malthus - The Man, his Times, the Issues

Hands On Malthus: An Epilogue¹

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It is my assigned task to summarize this disparate collection – to wrap my hands around an enormous and varied body of literature, and to squeeze it into some reasoned framework. No easy task, this. Behind us lies a fascinating collection of work, drafted from a number of academic disciplines, covering vast subject areas and time horizons, and arriving at various, sometimes conflicting, conclusions. How can I fruitfully summarize such a delightfully eclectic selection?

I have chosen a rather untraditional approach. Rather than simply list the achievements of each author's contribution, I thought I might juxtapose them in a way that will allow us to see Malthus in a different light – one that illuminates, in a unique way, his influence on subsequent debates and scholars. This light shines unevenly on the individual contributions above, but it casts wide enough to cover the whole conceptual territory. In this way I hope to complement the other contributions that have speculated about Malthus' durability, and I would like to use this summary to sketch it out.

In particular, I intend to contrast the different contributions at a single reference point, to help us better understand the significance and staying power of Malthus' contribution. This reference point will be the role of reason in Malthus' characterization of human nature, and its consequences for agency in a world characterized by strong natural constraints and limits.

The question of agency

I suggest that Malthus' legacy lies in his forceful argument for a concept of human nature that prioritizes the passions and senses, at the expense of reason. Although this conception of human nature is not unique to Malthus – indeed it becomes increasingly popular after the publication of Hobbes' *Leviathan* – it makes him suspicious of any institutional solution to the human dilemma. This, as much as any law of population, inhibits our potential. Like food, rationality is always in short supply in Malthus' analysis.

¹ I would like to acknowledge the helpful comments of both Torbjørn Knutsen and An-Magritt Jensen.

The question at hand is a big one, as it concerns the scope of human agency in a world constrained by laws of nature and limited natural resources. For both Malthus and his critics, the laws of nature are seen to be timeless; but the scope of agency varies significantly with the perspective and time of the individual observer. It is this variance in the scope of agency that I intend to use as the organizing principle of my short epilogue.

As John Avery points out in his contribution, as well as in his splendid book (1997), there is a strong historical parallel between our own period and that of Malthus' writing. Two hundred years ago, the promise and hope of the Enlightenment seemed threatened, if not snuffed out, by the great dislocations and suffering produced by the Industrial Revolution. European thinking arrived at an important crossroads, at which Malthus' *Essay* marks an important point of departure. Malthus enters as the quintessential intellectual curmudgeon—railing on the Enlightenment parades of Condorcet, Godwin and others.

Today, we struggle in a similar vacuum of optimism. In the wake of both World Wars, politicians and statesmen promised a new order based on universal principles and human rights. More recently, technical innovations—sponsored by the very institutions that make up our own world order—promised to alleviate world starvation. For a fleeting historical moment it seemed as though world famine and starvation might be overcome by technological progress and the spread of democracy. Today it appears as though the promise of the Green Revolution was squandered; the world community now seems threatened by catastrophic changes in the earth's climate.

As it was for Malthus, the time is ripe for concern and skepticism about the potential and scope for human agency. As the apparent limits of nature close in upon us (or become more obvious), the significance of agency becomes more pressing—its potential scope more relevant and divisive. The failings of science and reason have become more ominous.

In this context it is possible to discern two paths for human agency: one wide, the other narrow. The first assumes that market or political institutions can structure or influence human agency in ways that will allow it to respond effectively to threatening crises. The second simply assumes away the possibility of agency as a solution to these predicaments, and documents the various ways in which humans find themselves prisoners to the same laws that otherwise order nature. While the first path relies heavily on a notion of human rationality, this is not its defining characteristic: it is possible to find both non-rational solutions and rational grounds for pessimism. Drawing (loosely) from Adam Smith, we might further divide these two paths into three strategies:

An invisible hand. This strategy might also be called the Panglossian or the Prometheanist strategy, as it ascribes a blind faith in our ability to find solu-

tions to impending threats and problems. In its market form, this strategy holds that prices in a free market will lead individuals, as if by an "invisible hand" to act on the basis of self interest, yet produce the greatest good for all. But this strategy isn't limited to market forms. Arguments based on natural selection, as well as most other functionalist arguments, rely on the same sort of "invisible hand" strategy. Thus, advantageous variations in an individual creature or plant are magically passed on to later generations, to the benefit of the species. The significance of this strategy is that it allows for individual human agency *and* collectively optimal solutions—though it is unwilling or unable to delineate the exact causal mechanisms.

A visible hand. This second strategy holds that it is possible to construct political institutions (loosely defined) that will encourage some types of human behavior, while discouraging others. Like the invisible hand strategy, this approach recognizes the constraints on collective solutions, but allows human agents (unlike, say, plants and dinosaurs) to use reason and willpower to overcome potential constraints and limits. The hand is visible in the sense that these arguments don't have a blind faith in the ability (or justice) of market solutions, but use explicit institutional incentives to encourage certain types of behavior, assuming individual rationality. If reason is found to be in short supply, it is even possible to use fear (ala Hobbes) to influence collectively optimal solutions.

No hands (hands off). This strategy contains many variants. The first, and perhaps best known, is the simple determinist argument: humans live under the same natural constraints as other creatures, and no amount of good thinking will free them from this constraint. The agency of individuals is severely constrained by the laws that limit nature. More subtle variations of the same approach include forfeiture to God (i.e., God decides, not us) or man's baser elements (e.g., passion). If a supreme being determines our fate, or our rational capacity is clouded by other motivations, there is little point in discussing solutions aimed at influencing our unpredictable (and mostly irrelevant) behavior. Remarkably, there is even a reason-based "no hands" approach, associated with one of the main actors in the story above: the so-called voters' paradox, often attributed to Condorcet. This paradox suggests that there are no certain, or consistent, mappings between individual preferences and collective outcomes—they depend critically on the institutions (or mapping rules) involved. What these disparate examples of the "no hands" strategy share is the lack of faith in any means of ordering rational human activity into (consistently) collectively optimal outcomes.

This three-part typology, if very simple, can be used to position and juxtapose Malthus and his contemporaries, as well as their intellectual descendants. In

doing so. I have two explicit objectives. First, I hope that this sort of mapping can help us arrive at a more nuanced picture of Malthus and the way in which he is employed/understood by contemporary debate. To abuse the metaphor already in employ, I hope to use this typology to get our hands around Malthus. Second, and more pressing, I hope that this simple typology can provide me with an improvised ribbon: one that can be woven around (or throughout) the diffuse anthology above, and tie it together in a small, manageable package.

Positioning the actors

It was a strong reaction to the "visible hand" strategy that originally generated Malthus' *Essay*. This strategy was forwarded by a number of contemporaries, including Malthus' father (Daniel Malthus), as well as in the more famous utopian visions of the Marquis de Condorcet and the radical William Godwin. The latter two had already suggested that the application of scientific progress to agriculture, industry and politics would lead humanity toward a more perfect condition.

John Avery's contribution in Chapter 3 provides an introduction to the work of Godwin and Condorcet, in light of our present interest with Malthus — but Avery doesn't describe the original impetus for Godwin's piece. Godwin's argument can be traced back to the 1761 publication of Robert Wallace's *Various Prospects for Mankind, Nature and Providence*. Indeed, many of the arguments that are today associated with Malthus can be found in the earlier Wallace piece. What is particularly relevant is that Wallace explicitly considered the possibility of a "perfect government", discounting its potential to overcome the human population's tendency to increase exponentially.

This argument was a direct challenge to William Godwin's proposal for a more egalitarian society, prompting him to publish *Political Justice* in 1793.² Here Godwin responded to Wallace's challenge by arguing that the course of human population was not set by natural laws, but was regulated in accordance with conditions of wealth and wages. Of course, this position, and that of Condorcet's, is already documented in the Avery chapter, where we find impressive intellectual portraits for two of the most influential representatives of enlightened institutionalism.

For both Godwin and Condorcet, reason — when invested in the appropriate political institutions — could channel human energy in ways that would allow us to overcome any natural constraints. As Avery suggests, this is clear in

Godwin's response to Samuel Parr (and this is consistent with his response to Malthus): all we need to do is to change society's attitudes.³ Political institutions, rightly constructed, would allow us to change these attitudes, enticing us away from any disastrous consequences. This sort of solution assumes that rationality is a critical component of human nature, and that properly designed institutions (including markets) could provide incentives for reasonable people to change their behavior. In short, these institutions represent the visible hand of enlightened reasoning—and it is at this sort of reasoned edifice that Malthus' polemical shots were first fired.

This is most evident in the first edition of the *Essay*, although Malthus' position changes slightly over time. As Wallace had already advanced the "perfect government" argument, Malthus changed the terms of the debate, insisting that there was a constant tendency toward equilibrium between population and food supply. Under these conditions, Malthus argued that our focus needed to stay trained on maintaining those population checks that already existed, in order to ensure that the food supply was not overdrawn. In the first edition, these checks were largely limited to vice and misery, but — as we have already seen — a third check (that of moral restraint) enters in later editions. As misery and vice were necessary in order to keep the population in line with the food supply, any utopian attempt at future improvement of society (ala Condorcet and Godwin) was impossible.

This focus on misery, vice and moral restraint reveal a central component of Malthus' conception of human nature. This conception pops up in several of our contributor's accounts, and is quite explicit in Malthus himself. Like Hobbes, Malthus holds reason a prisoner to passion. This Hobbesian, passionate, man is clearly evident in a passage quoted by Avery:

Man cannot live in the midst of plenty. All cannot share alike the bounties of nature. Were there no established administration of property, every man would be obliged to guard with his force his little store. Selfishness would be triumphant. The subjects of contention would be perpetual. Every individual would be under constant anxiety about corporal support, and not a single intellect would be left free to expatiate in the field of thought.⁴ (Avery 1997:16)

The same passionate man is found in another passage from the first edition (1798), cited in An-Magrit Jensen's contribution:

A truth may be brought home to his conviction as a rational being, though he may determine to act contrary to it, as a compound being. The cravings of hunger, the love of liquor, the desire of possessing a beautiful woman, will urge men to actions,

2 *Enquiry Concerning Political Justice and its Influence on Morals and Happiness*.

3 Avery, this volume, p. 58.

4 Avery, this volume, p. 63.

of the fatal consequences of which, to the general interests of society, they are perfectly well convinced, even at the very time they commit them. Remove their bodily cravings, and they would not hesitate a moment in determining against such actions. Ask them their opinion of the same conduct in another person, and they would immediately reprobate it....⁵

It is, arguably, the very power of passion in Malthus' conception of human nature that makes him suspicious of any institutional (visible hand) responses. For reasons of which I am unaware, Malthus does not follow Hobbes in turning to fear to secure binding political institutions. Instead we are left without any real solution, only a nagging moral discomfort.

That *mazz*, for Malthus, is a sensual – not a rational – being, is a central point to Jensen's contribution. She begins (p. 124) with a quote from Malthus that clearly illustrates his focus on man, the physical/sensuous being:

I think I may fairly make two postulata. First, that food is necessary to the existence of man. Secondly, that the passion between the sexes is necessary and will remain nearly in its present state.

By exploring the way in which Malthus conceives of passion, Jensen provides us with a clear demonstration of the powerful role that passions play in Malthus' conception of human nature. She paints an intriguing picture of the struggle inside a man that must (on the one hand) condemn promiscuity as a moral evil, while (on the other) acknowledging that this evil performs a necessary function in society.⁶ By placing Malthus in the context of Godwin and Mary Wollstonecraft, Jensen depicts Malthus as a prisoner to the conventional norms of his contemporaries. Like his laws of population, the social norms that surrounded Malthus hold him captive to the narrow prejudices and injustices of his time.

But reason is not completely missing from Jensen's account of Malthus. The Malthus she depicts is not advocating the sort of "no hands" argument that one might assume to follow from his conception of human nature. As Jensen clearly illustrates, Malthus – in time – allows some small role for agency in the form of moral restraint. But moral restraints do not offer a lasting solution to the problem; it is a weak solution, albeit one largely beyond the grasp of women and/or the lower classes.

In contrasting the contributions of Avery and Jensen, we find Malthus distancing himself from both the "visible hand" responses found in the utopian conceptions of Godwin and Condorcet, and the "invisible hand" solutions offered by the market (in Adam Smith) or the *Divine Order* position of Johann

Peter Süssmilch.⁷ This positioning is confirmed in Olav Fagerlid's contribution, where Malthus' position in the economists' pantheon is characterized by his unwillingness to recognize invisible hand solutions.⁸

Malthus dissented from both Adam Smith and Jean Baptiste Say by entering the possibility of unsold goods. In particular, his theory of profit introduced the possibility of an unmet supply of savings, and a nascent theory of gluts that formed the basis of the latter attacks on equilibrium economics, including Keynes'. It is for this reason that Fagerlid (following Maurice Dobb) suggests that Malthus fathered (together with Sismondi) a theory of underconsumption.⁹

More insightful, perhaps, is the position of Marx, as described in the same chapter. In recent years it has been common to criticize Marx and Engels for their technological optimism and unwillingness to recognize the natural (ecological) limits to population and/or production. But Marx's critique of Malthus' reliance on natural laws to constrain human agency remains poignant. It is "far more convenient, and much more in conformity with the interests of the ruling classes, whom Malthus adored like a true priest, to explain this "over-population" by the eternal laws of Nature, rather than by the historical laws of capitalist production."¹⁰ Marx, as Fagerlid reminds us, regarded Malthusian laws as abstractions "fished purely out of thin air."¹¹ For Marx, it was important to distinguish clearly between natural laws and those of humanity, which are contextually derived. Human agency is constrained by social laws, but these laws – themselves – change with the historical context. The Malthus despised by Marx is the same one described in the Jensen contribution: a man unable to escape the social laws of his own time.

If Marx is correct, and context is significant, then the introductory contribution of Ståle Dyrvik is particularly important. In this chapter we are provided with a fascinating glimpse of the Norwegian context that helped spark Malthus' subsequent (and more refined) editions to his *Essay*. Here too, the central cleavage is over rationality, with Malthus and his father on opposite sides. The backdrop to his stay in Norway is similar to those depicted in the other contributions.

7 See Jensen, this volume, pp. 129–30.

8 This is not to question or belittle Fagerlid's emphasis on two other important contributions from Malthus: his influence on Ricardo, or his theory of surplus population. Rather, my point is that of J.M. Keynes': that Malthus' decisive contribution to economic thought was his attitude toward savings (and the consequences for Say's Law).

9 Fagerlid, this volume, p. 109.

10 *Capital* Volume I, Chapter 17.

11 Fagerlid, this volume, p. 114.

5 Jensen, this volume, p. 125.

6 Jensen, this volume, p. 127.

But in reading Dyrvik's contribution, and seeing Malthus on the ground as an empirical investigator, I begin to see Malthus in a different light. Here is a man who, by means of his method, seems to be driven toward discovering hidden truths or new laws. By asking the same question of several people, Malthus is shown to be checking carefully his sources; looking for differences in interpretations and observations. In this careful work of the nascent social scientist, it is difficult to see someone who doubts man's rational faculties. Why would a man dedicate his life to such careful observation, collection and study, if he didn't think that there was some rule that might be learned, to which a solution might be lent (either visible or invisible)?

Of course, this is just speculation, but Dyrvik's observations remain with me as I try to place Malthus among his peers. This is the same sort of depiction (of Malthus as the careful young scientist) that we find in the chapter by Tordbjørn Knutsen. Knutsen argues that Malthus' contribution to social science lies in the method inherent to the second edition of his *Essay*. Although Malthus remained "anti-ideological", he offers a constructive demonstration of how social science *should* be done: empirically grounded.¹² Although Knutsen doesn't elaborate on the role of reason in this inductive project (he does grant Malthus some deductive powers, see p. 34), we are introduced to an important "aggregation" problem, to which I will return presently. The descriptions of both Dyrvik and Knutsen problematize my depiction of Malthus. I'm drawn between Malthus, the man of science; and Malthus, the sensual (irrational) being.¹³

This compound picture of Malthus is reproduced in Richard Smith's contribution. By referring to Malthus' elegant metaphor of the tortoise and the hare, Smith begins his portrait by suggesting that Malthus maintained some hope for reasoned responses to the human dilemma. After all, it is with a visible hand that we might persuade "the hare to go to sleep, [so that] the tortoise may have some chance of overtaking her." Indeed, throughout Smith's contribution we find a Malthus that is actually engaged in political issues and attacking "inappropriate" responses.¹⁴ Here, apparently, is a Malthus who believes that "appropriate" visible-hand responses are possible.

In trying to position Malthus among his peers, we have yet another intellectual coordinate to consider. In the conclusion to his contribution, Avery suggests that the conflict between Godwin and Condorcet (on the one hand) and Malthus (on the other) can be understood in terms of a Hegelian dialectic, with Charles Darwin offering the "synthetic" solution. This is a common depiction, but I fear that it is misleading.

Darwin, of course, offers an alternative "invisible hand" solution — where collective equilibria appear in the natural world, without the conscious intent of the individual agents. In Dag Hessen's contribution, we find Darwin attracted to Malthus because of the latter's willingness to argue at the individual level of analysis (in contrast to that of Linne); this, in turn, is shown to have important connotations for the latter "lifeboat" or "tragedy of the commons" argument associated with the modern ecological movement (in general) and Garet Hardin (in particular).

It is commonplace to connect Malthus, Darwin and Hardin in this way (as Knutsen, Avery and Hessen all do); but it is not problem-free. The problem, as I see it, lies in the nature of an "aggregation" problem, to which both Knutsen and Hessen allude.¹⁵ Knutsen suggests that Malthus' contribution lies in his willingness to note that rational human intentions to not always add up to collectively optimal outcomes (p. 36). Hessen traces Malthus' impact on Darwin to another aggregation problem (p. 73). Both suggest that these aggregation problems lead us directly to the door of the modern ecological movement.

But Malthus, Darwin and the ecological movement (represented here by Hardin) all have very different solutions to the aggregation problem. I'm not even sure that they are talking about the same problem. For Hardin and most ecologists (not to mention the economists from whom the framework originates), rational actors are the implicit occupants of the applied models. Although the "tragedy of the commons" problem is challenging, rational agents can resolve it. Indeed, most authors that work in this tradition hope to promote/produce more efficient economic and political institutions (e.g., efficient property rights) in order to steer rational agents to a more optimal collective equilibrium.¹⁶ In short, this tradition implicitly relies on a "visible hand"

15 Although most of Smith's contribution examines the aggregation problem in terms of externalities, his closing depiction of Malthus suggests that the aggregation issue was not necessarily *problematic*. For Malthus, "The happiness of the whole is to be the happiness of individuals, and to begin first with them." Cooperation is not required, because we do not concern ourselves with the aggregate outcome; it is the individual that remains the sole level (and focus) of analysis: "If he cannot support his children, they must starve; and if he marry in the face of a fair probability that he shall not be able to support his children, he is guilty of all the evils which he thus brings upon himself, his wife and his offspring" (Smith, this volume, pp. 94–95).

16 Nor is there any reason to expect that all rational human activity (necessarily) lead to collectively sub-optimal solutions. The literature suggests that this sort of sub-optimal outcome is the exception more than the rule.

12 Knutsen, this volume, p. 33.

13 Cf. in Malthus' words, the "compound being", see quote above, p. 215.

14 Smith, this volume, p. 84.

strategy for solving the problems of the commons.¹⁷ This, it seems to me, is the whole point of the endeavor.

Darwin, on the other hand, represents a clear example of an "invisible hand" strategy. He does not seem to be interested in the rational faculties of humans – indeed, he seems to avoid references to humans like the plague. (Given the political and social context of his message, this shouldn't surprise us.) Darwin's main concern (in this respect) is to choose between the individual and the species as the appropriate unit of (natural) selection. Darwin doesn't recognize an aggregation problem in the same way that Hardin or Malthus does: he simply assumes that individual characteristics, when aggregated, will lead to collective outcomes that are either positive (survival of the species) or not (extinction).

Indeed, the relationship between Darwin and Malthus is problematic on several fronts. As Marx pointed out, Darwin used his natural history to refute (unknowingly) Malthus. "In his splendid work, Darwin did not realize that by discovering the "geometrical" progression in the animal and plant kingdom, he overthrew Malthus' story. Malthus' theory is based on the fact that he set Wallace's geometrical progression of man against the chimerical "arithmetical" progression of animals and plants."¹⁸ In short, Darwin seems to have missed the important fact that Malthus' theory doesn't apply to both plants and animals (including humans) – the whole point of Malthus is that the law of population is applied only to humans, and not to plants and animals!

By focusing on the role of reason (or its absence) in the work of Malthus, his contemporaries, and his alleged intellectual legacy, we find that many assumed links are rather tenuous. When Hessen and Knutsen link Malthus (via Darwin) to Hardin and the modern ecological movement, they are implicitly characterizing Malthus in terms of my "visible hand" strategy. As I have endeavored to show above, I think this is problematic, maybe even incorrect.

We can now place Malthus among his contemporaries. His contribution is one that leans in the direction of a "no hands" strategy – though it weakens slightly over time. Malthus' resistance to solutions (visible or not) rests critically on his core assumptions about the role of passion (relative to reason) in his conception of human nature. Escape from what we've come to know as the "Malthusian trap" cannot come from reason, divine intervention, or correct pricing. It is our nature – as sensual, corrupted, individuals – that keeps us from any reasonable solution to our current predicament.

17 There are other reasons to question the Malthusian legacy to this movement as well. For example, Malthus never used the word "overpopulation," and it is not certain that the concept is relevant in Malthus' analysis. For Malthus, natural checks on population were so effective that there was little point in worrying about a world overstocked with people.

18 Marx, *Theories of Surplus Value*, as cited in Foster (1998:12).

In later editions of the *Essay*, Malthus introduces the possibility of increased agency by way of affecting moral restraints. But reason is not given very long reign; the power of passions and the fury of nature continue to influence the main course of human progress (or lack thereof).

I wonder if it is not this, philosophical, position that explains Malthus' staying power. Malthus himself, his concepts (as unoriginal as most of them are), or his observations are entirely insufficient for sustaining the neo-Malthusian movement – as several contributors have already noted. Rather, his legacy may lie in his pervasive underestimation of the role of reason in human nature. In this light, Malthus is more than the heir to the dismal science of Economics; he provides a dismal outlook for any human endeavor. In the same way that Malthus reacted to the unbridled confidence and optimism of Condorcet and Godwin, today's neo-Malthusians are reacting with fear and distrust to the reasoned solutions of contemporary science.

I hasten to clarify my position, for fear of being misunderstood. I am not suggesting that science necessarily offers solutions to these problems, and that we must blindly rely on them, or lend faith to their success. Although I am critical of the "no hands" strategy, in whatever form, my own position is not the issue here. My point is to simply demarcate the current lines of battle in ways that would have been familiar to Malthus and his contemporaries.

In the current anthology, we find three contemporary pieces that illustrate the way in which the neo-Malthusian debate has developed. These three pieces illustrate how the terms of the debate – as well as the data – have developed significantly over the last two centuries. But the core philosophical trenches remain as they were. Indeed, all three of these contributions find themselves clearly in opposition to the Malthusian "no hands" position. This should not surprise us, given the ontological and epistemological priors of contemporary social science.

Perhaps the most pessimistic (in any rate, the more balanced) contribution comes from Jennifer Bailey. Bailey's argument is supply-driven: human population trends are given, and Bailey speculates about the potential world supply of fish (broadly defined) for meeting this growing population. Hers is a remarkably detailed and well-written survey of the limits to world fisheries – constraints that are mostly characterized in terms of natural limits and failed reason. But this is not a "no hands" argument. Bailey wants to believe that solutions are possible, and the past failings of policy makers and managers can be corrected. In the end, it is Bailey's (sometimes wavering) faith in the ability of politicians, fishers and managers to learn from past mistakes that places her in the "reasoned" camp.

In Tim Dyson's contribution we see clearly the modern equivalent of the Malthusian inductive scientist, as described by Knutsen and Dyrvik. But

Dyson, too, positions himself in the trench opposite from Malthus. For Dyson, contemporary problems can be alleviated by a balanced (reasonable) contribution from both visible and invisible hands. Democracy and political stability, new technologies, education, and better prices can all contribute significantly to righting the distributional wrongs that exist across regions.

Like Dyson, Brigham's contribution leans heavily in the direction of "visible hand" solutions. Indeed, her dichotomy between "neo-Malthusians" and "technological optimists" parallels – in many ways – the sort of distinction I have drawn here. When push comes to shove, it seems as though Brigham classifies contributors in terms of whether they see the technological glass as being half-full or half-empty. But this is only a backdrop to Brigham's more significant contribution: a contribution that dovetails nicely with the empirical description in Dyson's chapter. By introducing three stylized models for obtaining food security, Brigham shows the important role that "visible hand" solutions could bring to a debate that largely ignores them. Rather than characterizing the debate in simple, supply/demand terms, Brigham beseeches us to consider distributional solutions to the Malthusian dilemma.

In the framework of my imposed typology, there is not a true neo-Malthusian argument in this collection – one that throws up its hands in frustration at the enormity of the problems that face us: or justifies contemporary political and economic injustices with reference to natural laws and the survival of the fittest. For this, I am grateful. Enough paper has already been wasted by the likes of social darwinists, such as William Graham Sumner, who is known to have said that millionaires are a product of natural selection.

One reason for this is the ontological and epistemological priors that I noted above. Contemporary social scientists rely heavily on rational creatures to occupy and propel their models. For this reason, neo-Malthusians find it difficult to inherit Malthus' entire legacy. As a result, most have chosen to inherit Malthus' pessimistic outlook, without his conception of human nature. This is clearly evident in the Hardin-inspired work, referred to above (and in the Hessen and Knutsen chapters). To the extent that contemporary neo-Malthusians rely on rational strategies in confronting the ecological challenges ahead of us, I wonder if their heritage is really Malthusian.

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