

# THE PRINCIPLES OF ECONOMICS & EVOLUTION

A Survival Guide for the Inhabitants of Small Islands,  
Including the Inhabitants of the Small Island of Earth<sup>§</sup>



MATT FUNK, FLS

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§ Perhaps such an effort of effectively thinking through these implications requires a combination of qualifications which nobody possesses to a sufficient degree and which the specialist who feels sure in his own field therefore hesitates to undertake. To do it adequately one would indeed have to be equally competent... as a logician and as a mathematician, and as a physicist and as a philosopher. I need scarcely say that I possess none of these qualifications. But since it is doubtful whether anybody does, and since at least nobody who possesses them as yet has tried his hand at this problem, it is perhaps inevitable that the first attempt should be made by somebody who had to try and acquire the necessary equipment as he went along — F.A. von Hayek, *The Sensory Order: An Inquiry into the Foundations of Theoretical Psychology*, 1952

£ We can not dedicate—we can not consecrate—we can not hallow—this ground. The brave men, living and dead, who struggled here, have consecrated it, far above our poor power to add or detract. The world will little note, nor long remember what we say here, but it can never forget what they did here. It is for us the living, rather, to be dedicated here to the unfinished work which they who fought here have thus far so nobly advanced. It is rather for us to be here dedicated to the great task remaining before us—that from these honored dead we take increased devotion to that cause for which they here gave the last full measure of devotion—that we here highly resolve that these dead shall not have died in vain—that this nation, under God, shall have a new birth of freedom—and that government of the people, by the people, for the people, shall not perish from the earth — Abraham Lincoln, *The Gettysburg Address*, 1863

## **A THESIS**

Presented to the Faculty of The University of Prince Edward Island,  
in Candidacy for the Degree of Master of Arts in Island Studies

Submitted on April 25<sup>th</sup>, 2010.

Recommended for Acceptance by Dean Richard Gordon Kurial on April 30<sup>th</sup>, 2010.

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## §I – DEDICATION

For my Son, William.<sup>§</sup>

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§ Most people, [Dear William], complain about the meanness of nature, because we are born for a brief span of life, and because this spell of time that has been given to us rushes by so swiftly and rapidly that with very few exceptions life ceases for the rest of us just when we are getting ready for it. Nor is it just the man in the street and the unthinking mass of people who groan over this – as they see it – universal evil: the same feeling lies behind complaints from even distinguished men. Hence the dictum of the greatest of doctors: 'Life is short, art is long.' Hence too the grievance, most improper to a wise man, which Aristotle expressed when he was taking nature to task for indulging animals with such long existences that they can live through five or ten human lifetimes, while a far shorter limit is set for men who are born to a great and extensive destiny. It is not that we have a short time to live, but that we waste a lot of it. Life is long enough, and a sufficiently generous amount has been given to us for the highest achievements if it were all well invested. But when it is wasted in heedless luxury and spent on no good activity, we are forced at last by death's final constraint to realize that it has passed away before we knew it was passing. So it is: we are not given a short life but we make it short, and we are not ill-supplied but wasteful of it. Just as when ample and princely wealth falls to a bad owner it is squandered in a moment, but wealth however modest, if entrusted to a good custodian, increases with use, so our lifetime extends amply if you manage it properly.

Why do we complain about nature? She has acted kindly: life is long if you know how to use it. But one man is gripped by insatiable greed, another by a laborious dedication to useless tasks. One man is soaked in wine, another sluggish with idleness. One man is worn out by political ambition, which is always at the mercy of the judgment of others. Another through hope of profit is driven headlong over all lands and seas by the greed of trading. Some are tormented by a passion for army life, always intent on inflicting dangers on others or anxious about danger to themselves. Some are worn out by the self-imposed servitude of thankless attendance on the great. Many are occupied by either pursuing other people's money or complaining about their own. Many pursue no fixed goal, but are tossed about in ever-changing designs by a fickleness which is shifting, inconstant and never satisfied with itself. Some have no aims at all for their life's course, but death takes them unawares as they yawn languidly – so much so that I cannot doubt the truth of that oracular remark of the greatest poet: 'It is a small part of life we really live' – Seneca, *On the Shortness of Life*, c. 60 AD

## §II – COPYRIGHT NOTICE

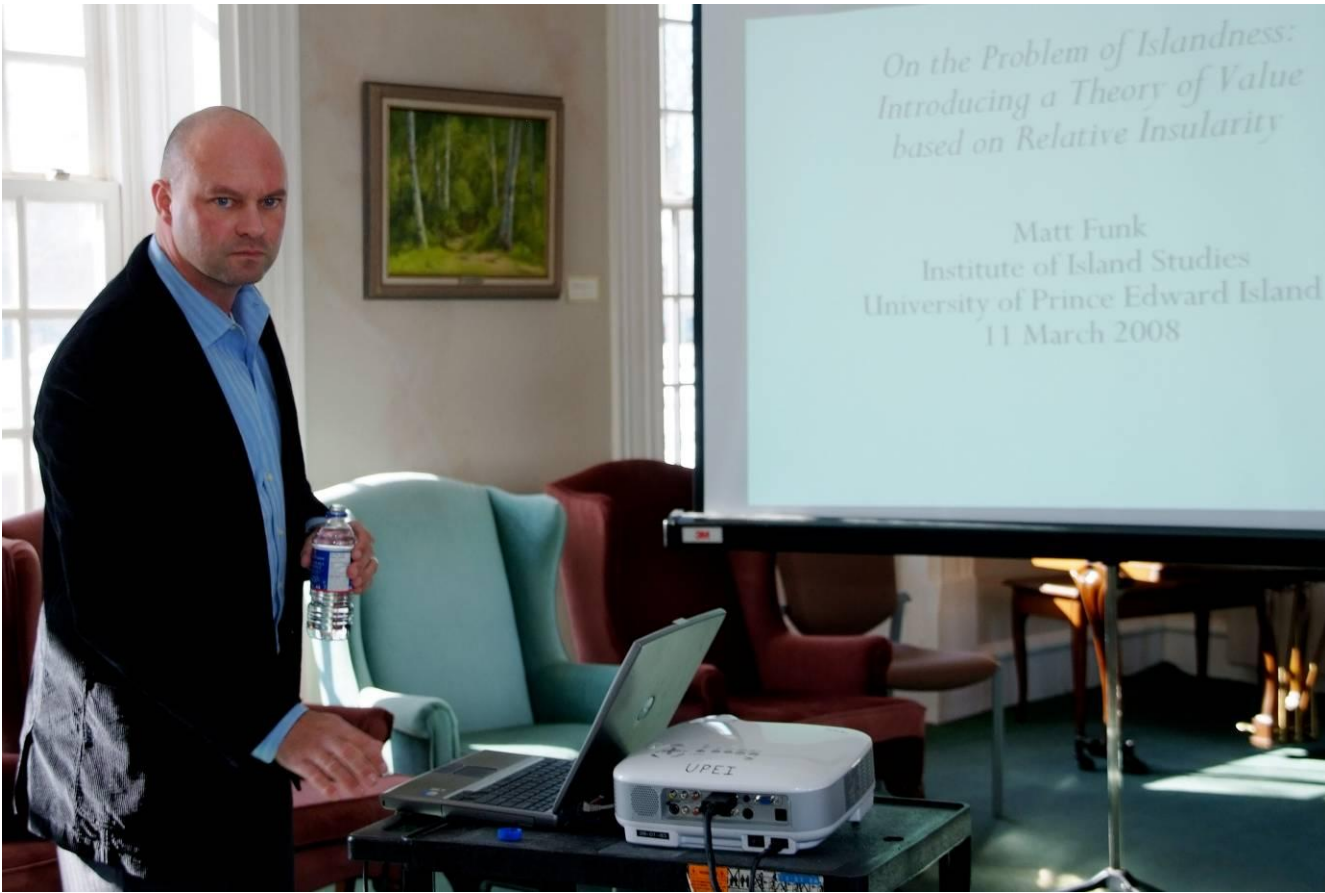


Fig. II – *The Birth of a Theory, Prince Edward Island, March 2008*

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§ The author thanks all friends, family, fellow students, faculty, and correspondents whom have graciously granted permissions to publish their generous and much-appreciated correspondences; special thanks are also in order for Clifton La Bree for permission to publish an excerpt (APPENDIX II) from *New Hampshire's General John Stark, Live Free or Die, Death is not the Worst of Evils*. The author would also like to extend a heartfelt thanks to the good people of Prince Edward Island and Premier Robert Ghiz for permission to reprint *A Search for a Measure of the Quality of Life on Prince Edward Island: An Inter-Provincial 'Cost of Living' Inquiry*. And, last but certainly not least, this report was made possible through the generosity and unwavering support of Eric Klein and The Lifeboat Foundation.

### §III – A NOTE ON THE DIGITAL SUPPLEMENT

For your convenience, twenty-three supplementary theoretical developments & supporting documents (DS §1 – §23), and thirty-eight fabulous photographs, topical tables, and fascinating figures (Fig. 1 – Fig. 38) are bundled in a single DIGITAL SUPPLEMENT (DS), which is readily and freely available from our friends at The Lifeboat Foundation:

<http://lifeboat.com/papers/matt.funk.on.the.principles.of.economics.and.evolution.digital.supplement.php>

Please be mindful of bandwidth and hard-drive limitations when opening and/or downloading this 1,233 page, 683 Megabyte, Adobe® portable document file (pdf).

The supplementary materials within the DS are either referenced by *page* or *chapter*. For example: “(DS, p 1)” refers to the first page, which you may note from the list of DIGITAL SUPPLEMENT CONTENTS, is the first page of *Imagination is More Important than Knowledge: A Thesis Defense in Three Acts*.

“(DS §2)” refers to the entire second chapter, *On the Purpose of a University Education: Words of Wisdom from Willard S. Boyle*, which alights upon pages 96 through 104.

Also note that page numbers (1-1,233) correspond to the page numbers of the .pdf file, not the page numbers of the individual chapters contained therein.

For your convenience, typing a desired page number into the page-count window in the top-left corner of the Adobe® Acrobat Reader window directs the DS to the desired page. Optical Character Recognition is enabled throughout, and thus specific terms and phrases may be readily sought and found.

It may also prove useful to note that the chapter, figure, and page numbers of the DS are denoted with Greek numerals (§1, §2, §3, Fig. 1, Fig. 2, Fig. 3, p 1, p 2, p 3, *etc.*), in contradistinction with chapter, figure, and page numbers within this thesis, which are denoted with Roman numerals (§I, §II, §III, Fig. I, Fig. II, Fig. III, p i, p ii, p iii, *etc.*).

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§ Subject: *Lightning in a Bottle*  
Date: Tue, 01 Jun 2010 12:51:13 -0300  
To: Matt Funk  
CC: Michael Mayne

Dear Mr. Funk,

Thank you for your e-mail in which you attached a draft of your thesis and acknowledged the benefit of the Island Student Award in your academic pursuits at UPEI. I would like to take this opportunity to congratulate you on your achievements to date.

You have requested, from the government of PEI, permission to include the published document, *A Search for a Measure of the Quality of Life on Prince Edward Island: An Inter-Provincial 'Cost of Living' Inquiry* (Baldacchino and Funk 2008) in the Digital Supplement section of your thesis. I am pleased to inform you that permission is granted to use the document in this way.

I wish you success in your future endeavours.

Sincerely, Robert Ghiz  
Premier

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#### §IV – EPIGRAPH

The following essay owes its origin to a [forthcoming book, an open letter to President Barack Obama, *On the Avoidance of Human Extinction: A Modest Proposal*, regarding] the future improvement of society, and the Author at first sat down with an intention of merely stating his thoughts to [President Obama], upon paper, in a clearer manner than he thought he could do in conversation. But as the subject opened upon him, some ideas occurred, which he did not recollect to have met with before; and as he conceived that every least light, on a topic so generally interesting, might be received with candour, he determined to put his thoughts in a form for publication....

He presumes... that the facts which he has adduced will be found to form no inconsiderable evidence for the truth of his opinion respecting the future improvement of mankind. [The Author] hopes it will appear that... he is actuated solely by a love of truth, and not by any prejudices against any particular set of men....

The view which he has given of human life has a melancholy hue, but he feels conscious that he has drawn these dark tints from a conviction that they are really in the picture, and not from a jaundiced eye or an inherent spleen of disposition.

The theory... he has sketched... accounts to his own understanding..., but whether it will have the same effect upon others must be left to the judgment of his readers.

If he should succeed in drawing the attention of more able men to what he conceives to be the principal difficulty in... society and should, in consequence, see this difficulty removed, even in theory, he will gladly retract his present opinions and rejoice in a conviction of his error.<sup>§</sup>

–Thomas Malthus, *An Essay on the Principle of Population*, 1798.

---

§ Knowledge consists in the search for truth – the search for objectively true, explanatory theories.

It is not the search for certainty. To err is human. All human knowledge is fallible and therefore uncertain. It follows that we must distinguish sharply between truth and certainty. That to err is human means not only that we must constantly struggle against error, but also that, even when we have taken the greatest care, we cannot be... certain that we have not made a mistake.

In science, a mistake we make – an error – consists essentially in our regarding as true a theory that is not true... To combat the mistake, the error, means therefore to search for objective truth and to do everything possible to discover and eliminate falsehoods.

This is the task of scientific activity – Sir Karl Popper, *In Search of a Better World*, 1992

## §V – ABSTRACT

This thesis tables an evolutionarily stable strategy for the problem of sustainable economic development – on islands and island-like planets (such as Earth), alike, and thus this treatise yields, in essence, a long-term survival guide for the inhabitants of Earth. Naturally, the scope, breadth, and complexity of our endeavour presents a formidable challenge – many considerable obstacles stand in our path, including a deeply entrenched and menacing teleological obstacle inadvertently erected, ironically, perhaps, by one of our greatest allies and truest champions: Darwin's *Origin* launched evolution into theoretical orbit and it continues to influence its course; indeed, this *magnum opus* detailed a tenable solution to the most fundamental open-problem facing human civilization. However, Darwin committed one nontrivial error which continues to misguide several crucial developments – not only in the evolving structure of evolutionary theory, but across the entire spectrum of science, including politico-economics and the social sciences at large. This problem has led theorists to mistakenly favour earth-based inputs over cosmic inputs, to over-emphasize biological evolution, and to under-emphasize stellar evolution. These perceptive, methodological, and logical errors have, in turn, emphasized the significance of the individual “struggle against competitors” over the cooperative “struggle against inclement environments”, and therefore fashionable theories relating to *Global Warming*, *The Problem of Sustainable Economic Development*, and *The Tragedy of the Commons* have been erected upon false and sandy foundations, and, furthermore, suggest evolutionarily unstable solutions. And thus, alas, largely redirected economic development strategies and global threat mitigation efforts (including unprecedented levels of international cooperation) are required in order for long-term “island”, “continental”, and “global” economic development strategies to ultimately succeed and, therefore, for long-term human survival to be achieved.<sup>§</sup>

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§ To yield to every whim of curiosity, and to allow our passion for inquiry to be restrained by nothing but the limits of our ability, this shows an eagerness of mind not unbecoming to *scholarship*. But it is *wisdom* that has the merit of selecting, from among the innumerable problems which present themselves, those whose solutions is important to mankind – Immanuel Kant, *Dreams of a Ghost Seer*, 1766

## §VI – ON THE GAME OF LIFE: A FOREWORD

*Subject: funkadelic*  
*Date: Thu, 04 Feb 2010 12:01:34 -0400*  
*From: Richard Gordon Kurial*  
*To: Matt Funk*

Dear Matt,

I have been following with interest, as you know, the correspondence regarding your comings and goings, your readings and writings, and your ever-expanding world of connections.

In that regard, I read with positive interest your 26 January missive ... which suggested, in an optimistic tone, that the end game of your thesis defense would be complete prior to the coming Convocation.

But then, five days later, I was copied on a message which announced that you were abandoning the program in pursuit of other interests. This was all the more surprising given that your travel itinerary outlined in the message of 26 January suggested that the matter of defense would be addressed ... upon your return.

Well might this give an external observer pause. After all, why would you choose to take what appears to be such a precipitous action when, in fact, you are so close to completion of the MA?

No doubt you will provide an articulate and clear response. Indeed, I do not even require a response to the query. Still, I did want to ensure that you have, in fact, thought this decision through. You have made a very positive impact at UPEI. It wouldn't at all be a bad thing to complete the journey upon which you embarked some few years ago.

Warm regards,

Richard

Things may not be immediately discernible in what a man writes, and in this sometimes he is fortunate; but eventually they are quite clear and by these and the degree of alchemy that he possesses he will endure or be forgotten.

Writing, at its best, is a lonely life.... For he does his work alone and if he is a good enough writer he must face eternity, or the lack of it, each day.

For a true writer each book should be a new beginning where he tries again for something that is beyond attainment. He should always try for something that has never been done or that others have tried and failed. Then sometimes, with great luck, he will succeed.

How simple the writing of literature would be if it were only necessary to write in another way what has been well written. It is because we have had such great writers in the past that a writer is driven far out past where he can go, out to where no one can help him.

— Ernest Hemingway, *Nobel Banquet Speech*, 1954

Dr Richard Gordon Kurial, Dean  
University of Prince Edward Island  
550 University Avenue  
Charlottetown, Prince Edward Island  
CANADA

25 April 2010

On Indifference to Skepticism, Doubt & Ridicule<sup>§</sup>

Dear Richard,

I am writing to inform you that I have made a great mistake.<sup>£</sup>

The nature of my mistake occurred to me upon receipt of your kind, thoughtful, and generous note dated 4 February. “Funkadelic,” I liked that, it made me smile. Thank you. Your perceptive and sympathetic note also made me realize I was quite wrong, and that I owed you an apology. I should clarify, however, that my missive of 26 January neither stated nor implied that I was “abandoning the program”, rather I had only stated that I had withdrawn five previous theses from further consideration. And this, as you shall soon see, happens to represent a very fortuitous event, for I have in fact united the theoretical content of all five (DS §3, §5, §7, §8, §11) into one.

But as for an articulate and clear response to your query, in brief, without getting too sentimental, I was thoroughly inspired by Willard S. Boyle – whom you may find seated next to me on the cover of my 3-page PhD dissertation (§4).

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§ No one was more obsessed with originality, more disdainful of authority, or more jealous of his independence. As a young man he was surrounded by the high priests of twentieth-century science – Albert Einstein, John von Neumann, and Norbert Wiener – but he joined no school, became no one's disciple, got along largely without guides or followers. In almost everything he did – from game theory to geometry – he thumbed his nose at the received wisdom, current fashions, established methods. He almost always worked alone, in his head, usually walking, often whistling Bach. Nash acquired his knowledge of mathematics not mainly from studying what other mathematicians had discovered, but by rediscovering their truths for himself.... His indifference to others' skepticism, doubt, and ridicule was awesome (Nasar 1998).

£ I do not believe that dryness in language adds to the scholarly quality of a book or that the pronoun 'I' should be banned.... Here I have chosen a more personal style, one that retains ample emphasis on scholarship yet will be accessible to a variety of readers (Taagepera 1993, p xv).

You see, I'd been feeling fairly depressed.

Over the past year I had painstakingly developed and submitted five Master's theses – ranging from 350 pages to a single page (DS §3). And, despite the fact that one (DS §8) had led to my election to Fellowship to the world's oldest biological society, and that another (DS §5) had been accepted for publication by a member of the British Antarctic trio whom had discovered the hole in the ozone layer, I had consistently failed to sufficiently gain anybody's attention at UPEI.

But as this discourse unfolds, I believe that you'll see that failure is not an option (Kranz 2000) and, furthermore, that I have a thunderbolt for a weapon (*cf* DS, p 263). And as a matter of fact, I was stuck by another thunderbolt-of-sorts when I picked up the newspaper on a crisp fall day last October: You see, I had begun to suspect that something was amiss, and thus I was glad and somewhat relieved to see that somebody special agreed with me (APPENDIX I).

And since problem-solving and research are two of my stronger suits (with a half-dozen Master's theses under my belt, including one successfully defended, I have had plenty of practice), I began to dig in and explore a possible solution to the problem I was facing – and the more I uncovered about Willard S. Boyle and George E. Smith, the more inspired and elated I became.

Yes, I thought, I could sure use their advice – so on 4 January 2010 I sent Dr Boyle an SOS (DS, Fig. 9) with the copy of a letter (DS §2) and my one-page thesis (DS §3), explaining my quagmire. And as it turned out, my single-page thesis struck a chord with Boyle because, as luck would have it, Boyle and Smith weren't exactly *partners* at Bell Laboratories, Boyle was Smith's *boss*. And although it seems perhaps it didn't hurt that Smith was his neighbour and they had become family friends, here's what Boyle told me and my fellow Halifax Club members about the hiring of Smith: He said, “It's always a bad sign when researchers come into a meeting with stacks of papers under their arms and start handing you piles to read. I hired Smith because he was able to communicate a very complex and very important message with a mere three pages.”

Yes, it seems I couldn't have fallen into better company; and in due course I wasn't feeling that depressed because, after convincing my fellow Halifax Club members to present Boyle with an invitation to a hosted luncheon and conversation, he graciously accepted (as you may recall, I extended a faculty & student invitations to this event).

And it gets better: Boyle also related that perhaps the single greatest factor in his extraordinarily successful life has

been heavy doses of *encouragement*. Most of this encouragement, which has been widely reported upon elsewhere, came from his mother, who home-schooled Boyle in northern Quebec until he entered high-school. And even after Boyle went off to school, his mother took him to week-end lectures in giant auditoriums at McGill, where she would continue to offer healthy doses of encouragement by saying, “Go ahead, Willard, stand up and tell them who you are.”. And, in fact, Boyle related that, over the years, this mantra became the Boyle family motto, “Go ahead, Dad, stand up and tell them who you are!”

But Boyle shared something else that I do not believe has been reported elsewhere. During our talk on discovery, invention, early childhood development, encouragement, the remarkable intellectual environment at Bell Laboratories (read: freedom), and scientific method (*cf* DS §4), Boyle also highlighted how much encouragement he had received from his professors at McGill while he was working on his PhD – he also noted that he had been given a full year of credit for the year he spent away from McGill, landing Spitfires on the decks of aircraft carriers during World War II. And thus perhaps you can imagine that, although I was elated and inspired to have met this kindred spirit and extraordinary problem-solver, my theses had remained unread for over a year, and, thus, not only had I not received adequate *encouragement*, I was effectively administered large doses of *discouragement*.

But your email dated 4 February changed all that.

Thank you for your encouragement. Thank you for telling me that I've made a positive impact, as I had been feeling fairly under-appreciated. Furthermore, I had fallen under the impression that nobody was interested in helping me bring this long journey to an end. But now that I'm aware that there is such a person – and that that person is you – I am thus pleased, proud, and honoured to submit my sixth and final UPEI thesis for your consideration.

It's time to bring this big ship into the harbour, and I'm sending out this SOS to you.

I also promise to make this exciting and highly entertaining rescue mission well-worth your while.

Imagine, Richard, that, once upon a time, there lived a scholar, so dedicated, passionate, and relentless that he was able to clearly articulate and contextualize a major and complex theoretical breakthrough that was three years in the making.

Imagine that the very same scholar was able to simultaneously paint a majestic panorama, a clear, concise over-view of his *annus mirabilis*, the single-most extraordinary year of his intellectual development and scholarly life, retracing the most



significant steps, carefully mapping a vast, sunny, and new theoretical universe – all in one hundred and twenty-one pages.

Imagine that this scholar was also able to offer a dazzling, unabridged, uncensored, utterly exhaustive expansion of this already vast universe – a director's cut or an extended dance remix of sorts – within a 1,233 page supplement.

And, better yet, imagine that these two narratives unite to construct the foundation for a tenable solution to the most fundamental open problem in economics: a unified theory of value. And what if he was also dextrous enough to condense this entire Technicolor panorama into three simple pages (DS §4)?

Well, there's no need to strain your mind nor test your imagination, because I am that scholar, and I hereby offer this discovery to you, the faculty, my fellow students, and President Wade MacLauchlan (*cf* §VII).

I'm even willing to offer three guarantees: (i) You will laugh out loud at least once – very hard, receiving all the life-affirmations and health benefits laughter readily confers – (ii) you will shed at least two soothing, moisturizing tears – and (iii) you will personally gain and benefit from *at least three* true, original, nontrivial, and hereto unknown contributions to knowledge.

With these Olympian tasks clearly set-out before us, we must march on without further ado by spotlighting an important letter which I mailed on 12 February 2009, in honour of the 200<sup>th</sup> birthday celebration of Abraham Lincoln and Charles Darwin (*cf* Mullen 2009): *On the Truly Noncooperative Game of Island Life: Introducing a Unified Theory of Value & Evolutionarily Stable Island Economic Development Strategy* (DS §8).

But prior to digging too deeply into this celebratory treatise, perhaps it may prove fruitful to first consider the following remarks regarding my *modus operandi*.

In light of the fact that I've thoroughly, exhaustively, and meticulously detailed my methods in previous works (DS §1, §2, §4, §7, §8 ; §14–18), I'll direct interested readers to three brief overviews (DS §2, §7 ; DS, pp 252-262) and shine a bright light upon excellent maps drawn by my most influential guides (Popper 1999, 1993, 1962, 1959, 1957, 1956a, 1956b, 1945 ; Hayek 1982, 1979, 1974a, 1974b, 1960, 1952, 1945, 1944a, 1944b, 1943a, 1943b, 1941, 1933 ; Hayek, Bartley & Kresge 1991 ; Hayek & Bartley 1988 ; Hayek, Kresge & Wenar 1994 ; Fuller 2003 ; Frey 2003, 2000, 1997 ; Fosberg 1970 ; Sokal 2008 ; Robottom & Aiston 2006 ; Darwin *et. al.*, 1849 ; Mayr 2004 ; Humboldt 1845, 1817, 1814, 1811, 1807 ;

Humboldt & Bonpland 1814 ; Nash 1951, 1950a, 1950b ; Maynard Smith 1982 ; Goldsmith 1973 ; Carlquist 2009a, 2009b, 1983, 1974, 1965 ; Bartmann 1991). But given the expanse and gravity of these crucial methodological matters, I must restrict this note on method to the narrative at hand: In brief, like Humboldt, Hooker (*cf* Berry 2009) Wallace, and Darwin, I am simply a naturalist<sup>§</sup> who recognizes the extraordinary value of comparative island study.<sup>£</sup>

Like Harrison and Lincoln, I'm hungry and I read a lot.<sup>†</sup>

Like Tucker, Kuhn, Nash, Aumann, and Maynard Smith, I've come to recognize the analytical and descriptive power of game theory (of which, much more to follow).

Like Socrates, Popper, Hayek, Stigler, Hume, Smith, and Russell, I endeavour to speak my truths simply. “A follower of the Enlightenment speaks as simply as possible: we want to be understood. In this respect Bertrand Russell is our great master” (Popper, 1999, p 206).<sup>‡</sup>

However, like Gould (2002) and Taleb (2001), I also recognize that simple truths distilled from complex theoretical findings invariably require long, patient, detailed, and exhaustive explanations.<sup>Ω</sup>

And, finally, following a methodological trail blazed by Montaigne, I've come to recognize that personal narratives neither dilute nor diminish the scientific integrity of theoretical discourses, but rather, that they breathe life, strength, vigour, and logical clarity into such attempts. Thus I must also disclose that this treatise into a

category of essays, a literary genre defined, ever since Montaigne's initiating 16<sup>th</sup> century efforts, as the presentation of general material from an explicitly personal and opinionated point of view – although the best essays (literally meaning “attempts,” after all) tend to be forthright in their expression of opinions, the basis of authorial preferences. On the other hand, technical treatises in science do not generally receive such a license for explicitly personal expression. I believe that this convention in technical writing has been both harmful and more than a bit deceptive. Science, done performe by ordinary human beings, expressing ordinary motives and foibles of the species, cannot be

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§ Darwin was first and foremost a naturalist. His favourite method was also that of the naturalist. He made a series of observations and developed a conjecture from this evidence.... Actually, perhaps the closest to the truth would be to say that Darwin was a pragmatist and used whatever method he thought would bring him the best results (Mayr 2001, pp 488-489 ; *cf* Mayr 2004 ; Darwin & Wallace 1858 ; Darwin 1849).

£ Compared with continents... [islands] have a restricted area and definite boundaries.... The number of species and of genera they contain is always much smaller than in the case of continents, and their peculiar species and groups are usually well defined and strictly limited in range... Their relations with other lands are often direct and simple and even when they are more complex are far easier to comprehend than those of continents (Wallace 1881, pp 241-242).

† Harrison educated himself with the same hunger for knowledge that kept young Abraham Lincoln reading through the night (Sobel 1995, p 62).

‡ Every intellectual has a very special responsibility. He has the privilege and the opportunity of studying. In return, he owes it to his fellow men (or 'to society') to represent the results of his study as simply, clearly and modestly as he can.... Anyone who cannot speak simply and clearly should say nothing and continue to work until he can do so (Popper 1992, p 83).

Ω I do not dispute that arguments should be simplified...; but people often confuse complex ideas that cannot be simplified into a media-friendly statement as symptomatic of a confused mind. MBAs learn the concept of clarity and simplicity—the five-minute manager take on things. The concept may apply to the business plan for a fertilizer plant, but not to highly probabilistic arguments (Taleb 2001, p 69).

grasped as an enterprise without some acknowledgment of personal dimensions in preferences and decisions – for, although a final product may display logical coherence, other decisions, leading to other formulations of equally tight structure, could have been followed, and we do need to know why an author proceeded as he did if we wish to achieve our best understanding of his accomplishments, including the general worth of his conclusions.

Logical coherence may remain formally separate from ontogenetic construction, or psychological origin, but a full understanding of form does require some insight into intention and working procedure. Perhaps some presentations of broad theories in the history of science – Newton's *Principia* comes immediately to mind – remain virtually free of personal statement (sometimes making them, as in this case, virtually unreadable thereby). But most comprehensive works..., from Galileo's *Dialogo* to Darwin's *Origin*, gain stylistic strength and logical power by their suffusion with honorable statements about authorial intents, purposes, prejudices (Gould 2002, p 109).

Furthermore, not only does full understanding require personal insights – it also requires something else: *artistry*.

Not only do science and art mix well, they actually *need* one another. And this dimly seen, ill perceived necessity represents an arena the great artist and story-teller Ayn Rand knew well:

The source of art lies in the fact that man's cognitive faculty is conceptual – *i.e.*, that man acquires knowledge and guides his action, not by means of single, isolated percepts, but by means of *abstractions*...

Art is a selective re-creation of reality according to an artist's metaphysical value-judgments. Man's profound need of art lies in the fact that his cognitive faculty is conceptual, *i.e.*, that he acquires knowledge by means of abstractions, and needs the power to bring his widest metaphysical abstractions into his immediate, perceptual awareness. Art fulfills this need: by means of a selective re-creation, it concretizes man's fundamental view of himself and of existence. It tells man, in effect, which aspects of his experience are to be regarded as essential, significant, important. In this sense, art teaches man how to use his consciousness. It conditions or stylizes man's consciousness by conveying to him a certain way of looking at existence (Rand 1969, pp 17-45).

Therefore my highly opinionated, unusually personal, curiously artistic thesis has been orchestrated and loaded to the brim with artful abstractions and sundry tricks-of-the-trade to help concretize illusive theories, and bring them into immediate, perceptual awareness. In other words, the unusual narrative stream passing before your eyes has been produced and carefully crafted to facilitate the broad understanding of a complex and difficult thesis.

For example, amongst friends, classmates, and colleagues, depending upon perspective, I suppose, I'm either famous or infamous for what has been celebrated by some (including Swiss Economist Bruno Frey) and cursed by others (including American economist Roger Myerson) as “funkspam”.

Some appreciate these insights more than others.

Consider, for example, a niche-cast communique from yesterday...

*Subject: Blue Horseshoe loves Anacott Steel*  
*Date: Sun, 30 May 2010 21:46:07 -0300*  
*From: Matt Funk*  
*To: Undisclosed Recipients*

Love the online comments posted below this article – yes, as I've noted before, it does appear the 50-year Honeymoon may be over [cf DS, pp 208-209]:

*Warren Buffett Forced to Testify Before Financial Crisis Commission* [<http://www.cnbc.com/id/37391045>].

“The main thing about money, Bud, is that it makes you do things you don't want to do.”  
– *Wall Street*, an original screenplay by Stanley Weiser & Oliver Stone, 1987

One recipient indicated this evening that he valued my communiques enough to wish to receive them in “real-time”:

*Subject: Blue Horseshoe loves Anacott Steel*  
*Date: Tue, 1 Jun 2010 20:24:02 -0500*

Funk,

Thanks for the update. I am sending from my work email so I can get in real time. How and what are you up to these days?

Keep me on your mailer and let's catch up soon.

Shane Foley | Private Banker | Wells Fargo | 350 W. Colorado Blvd Ste. 390, Pasadena CA 91105

Also, like most active problem-solvers I know, since I do not have time to maintain regular contact with all the wonderful people in my life, sometimes, when composing email, if I suspect that I've lent a difficult topic sufficient scientific/artistic touch, I'll invariably “Bcc” the communique to others whom may gain or otherwise find the particular insight or illumination of some value.

For example, in February of 2009, after returning from a Hawaiian research expedition (DS §11), I attempted to concretize my theory of value based upon relative insularity (DS §4) in the following email to the famous Chicago-based private-equity financier, Avy Stein...

*Subject: Island Life*  
*Date: Sun, 15 Feb 2009 17:44:39 -0400*

Dear Avy:

I'd like to offer a very belated thank you. Although you may have even forgotten by now, many years ago you were kind and gracious enough to meet with me when I knew nothing and had even less to offer, and although I may now know merely next-to-nothing, I have discovered a few things that may be of interest to you.

As I was writing an email to Ken Griffen a few moments ago (copied below), it occurred to me that you might appreciate my most recent research findings as well.

Although you may recognize that I am searching for an opportunity to apply my theoretical findings, in consideration of the portfolio holdings listed on your website, I don't think I'd be much use to you, as my focus is primarily upon rangeland and wildlife production systems.

However, if you develop interests in this class of investments in the future, please keep me in mind. For example, I've looked closely at Tehon Ranch (TRC), and it seems likely that their present strategy will eventually run them into the ground (with or without an economic recovery), and, based upon my researches, it seems considerable value could be achieved by pursuing a course quite the opposite of their present heading. I also see considerable unrealized value in the privately held Molokai Ranch (which is for sale), and Parker Ranch (where significant holdings are also for sale). Hawaii does present significant risks (such as an active volcano), and this, in conjuncture with the present economic climate, has exerted and may continue exert phenomenal downward price pressure on these rangeland holdings. Otherwise, more generally speaking, I'm interested in helping someone pursue what I happen to believe is the most prudent economic strategy in play in the United States today: Ted Turner's vertically integrated strategy for his 2MM+ acres of rangelands, wildlife and ungulate (Bison) production systems, and Ted's Montana Grill (If you haven't read *Call Me Ted* [2008], I highly recommend it).<sup>3</sup> And, as my research also focuses upon the privatization of islands (and other island-like developments), if you should come across an opportunity in this arena, I may have some insights to offer regarding carrying-capacity and/or optimal development strategy.

In any case, I hope all is well, and please accept this belated thanks!

*Subject: Island Life*

*Date: Sun, 15 Feb 2009 16:16:24 -0400*

Dear Mr Griffin:

I was in Chicago last weekend for my son's 6<sup>th</sup> birthday party, and as I was staying at The Union League Club [*cf In Defense of Private Clubs*: DS, p 453], I thought of you.

You may recall that in December of 2007 I hand-delivered a letter [DS §13] and some recent research materials [DS §7 ; DS §15] which suggested that we were on the verge of a global economic collapse and that I had a solution, since I had in fact solved the most fundamental, open problem in economics. If you had the opportunity to review this material, you might also recall that I had developed a strategy which informed an evolutionarily stable hedge against economic collapse.

I apologize that, due to the fact that my findings were in a very early stage of development and yet quite unrefined [*i.e.*, DS §15], I suspect that they were not sufficiently coherent to garner your attention. Naturally, I'm also sorry that we did not have the opportunity to employ my strategy.

But I had the opportunity to present these findings in Finland last summer [DS §14], have been refining and clarifying them ever since, and have just completed a comprehensive working paper detailing the complex inter-dependencies which relate to this problem and my theoretical solution. Since you note on your web-site that you are working on "the most complex financial problems in the world," I thought you may be interested in my discoveries [DS §7-§8].

Moreover, although some of my fears (sub-prime, CDS, *etc.*) have indeed come to pass, the most significant economic threats remain outstanding, largely unrecognized. You may recall that, when Mr Soros [2008] offered his testimony when you were both called to Washington last November, he began by noting that the "most salient feature" of the current economic crisis is that it is "internal." As you may discover, my research – the threats with which I'm primarily concerned – are "external." It is impossible to convey the gravity of the logical implications these "external threats" freight in such a short letter, but, in the meantime, I submit that the economic stimulus agenda that we have begun to deploy has the deleterious potential to compound the problem by creating far greater exposure to these external risk factors.

I will also note that Warren Buffett's recent declarations that "U.S. equities presently represent a good value," are – despite his track record – emphatically false. Alas, this is *The Problem of Induction* [Popper 1959 ; *cf* Lowenstein 2000]. Neither Buffett nor anyone else is sufficiently equipped to say what 'represents' or 'does not represent' a good value [*cf* DS, pp 208-209], because, as Chicago's very own George Stigler [1982] noted, economics does not have a theory of value. And this, by the way, is the fundamental, open problem I solved by deriving a universal theory of value [DS §4].

And, to this point, you may also recall that my methods are rather unusual – that I do not believe in the inductive methods of applied mathematics, and that I utilize 'islands' as economic models. Although it may be true that, as far as I know, I'm the only economist/naturalist utilizing such methods, I believe that many may be willing to consider that, perhaps Nassim Nicholas Taleb was right, that econometrics is essentially useless, and that – especially insofar as the 'social sciences' are concerned – probability theory causes more harm than good.

You may also recall that I did some research in the Florida keys in February of 2008, and that I had invited you to be our guests at the Ocean Reef Club if you wanted to observe my research methods first-hand. Well, I'd like to extend a similar invitation to witness my theoretical solution in action on Parker Ranch, on the big island of Hawai'i. I'll be conducting field research for the next two weeks, so if you'd like to experience *The Principle of Relative Insularity* first-hand, or discuss the evolutionarily stable hedge strategy it informs, my wife and I are set-up in a cottage (two spare bedrooms) within the ranch. Alternatively, if you've been to Mustique, then you have already experienced *The Law of Relative Insularity* in full force, and thus, grasping the significance and implications of my theory may come rather easily.

I've enclosed the first 23 pages of the paper [DS §8] noted above – if you'd like to review the remainder I will be happy to forward it to you upon request.

You'll find my contact information at Parker Ranch on the second page [DS, p 162] of the attached.

My itinerary for the next three weeks is below, and although I do not have a trip planned to Chicago, this could be easily arranged. But please consider joining us for a few days in Hawai'i. Although Parker Ranch doesn't model my solution as well as The Mustique Co., it does share several primary characteristics, and, of course the Pacific Basin offers much greater biogeographic insularity than the Caribbean.<sup>§</sup>

February 16 2009 – American Airlines 223 – Depart Boston at 6:55 PM – Arrive Los Angeles at 10:25 PM

February 17 2009 – American Airlines 247 – Depart Los Angeles at 5:15 PM – Arrive Kona at 9:00 PM

March 05 2009 – American Airlines 246 – Depart Kona at 10:30 PM – Arrive Los Angeles at 5:35 AM

March 06 2009 – American Airlines 551 – Depart Los Angeles at 8:00 AM – Arrive Dallas at 1:05 PM

March 06 2009 – American Airlines 802 – Depart Dallas at 2:40 PM – Arrive Montreal at 7:05 PM

But prior to sending off this email to Avy Stein, it occurred to me this curious illumination upon relative insularity might be of some interest to my fellow USC Peter Stark Motion Picture Producing Programme alum, Academy Award winning producer, Edward Saxon, as I had asked him to consider visiting UPEI to talk about film-making, cultural evolution, and his extraordinary and brilliant mix of art and science: *Adaptation* (Saxon 2002 ; cf Murray, Topel, Saxon, *et. al.*, 2002).<sup>£</sup>

In any case, perhaps it helped, since the next day he replied...

*Subject: Island Life*

*Date: Mon, 16 Feb 2009 07:53:52 -0800*

Hi Matt, Nice to get this note. What an interesting world you run in!... I'd love to come to PEI sometime. I went to McGill and have always wanted to visit the Maritimes. Summer would be ideal, but I imagine there's no school

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§ Many thousands of islands, totally more than one million square miles of land area, are strewn over the third of the earth's surface that comprises the Pacific basin....

Any consideration of Pacific islands must begin with the immensity of the water area that surrounds them, the largest single earth feature, whose area is greater than all the land above sea level on the face of the globe (Thomas 1963, p 7).

£ You know why I love plants? Because they're so mutable, so adaptable. Adaptation is such a profound process. (beat) Adaptation means you figure out how to survive in the world. People aren't so good at that sometimes (Saxon 2002).

then. Late-ish spring or early fall?

Best, Ed

However, as noted, “funkspam” isn't always well-received, and a particularly unwelcome reception may actually help illustrate my point: Consider the following exchange with another Academy Award winning producer – an unfortunate miscommunication regarding the “pertinence” and indivisible inter-relationship between art and science, which I will endeavour to remedy following this heated, reverse chronology email-exchange (it reads from the bottom, up):

*Subject: On the Avoidance of Human Extinction: A Modest Proposal*

*Date: Mon, 4 Jan 2010 15:34:08 -0800*

*From: Larry Turman*

Hey, I didn't blow a gasket, but not hearing about you for a dozen years and now you flood me with non-pertinent Stark stuff. Yes, my 400 alumns keep me sporadically posted re their understandable show biz activities. Glad you're seemingly doing well...keep on truckin'

*On 1/4/10 3:14 PM, Matt Funk wrote:*

Easy tiger, just thought you might like to maintain contact with your alumni and stay abreast of their endeavours and developments.

There is no “list” *per se*, but, as you wish, you won't hear from me again.

Try not to blow a gasket, have a happy new year, and consider a vacation.

*Subject: On the Avoidance of Human Extinction: A Modest Proposal*

*Date: Mon, 4 Jan 2010 14:43:23 -0800*

*From: Larry Turman*

DAMNIT....TAKE ME OFFYOUR EMAIL LIST!!

Of course I'm not pleased with this state of affairs, and thus I intend to issue an apology along these lines:

Dear Larry,

I would like to offer you an apology and an explanation.

True, you had not heard from me for nearly twelve years – but that was merely because I had accomplished nothing during that time, and thus had nothing important nor valuable to offer.

But over the past year I have indeed had many important things to say, several of which I was attempting to communicate and share with you. As I noted in a previous note of thanks, I cannot be thankful enough to you and the Stark Programme. To this point, although it may *appear* that I've gone off in quite another direction, nothing could be further from the truth; upon a cursory review of an exemplary overview of my researches (DS §7), you may in fact see just how pertinent my researches actually are to the Stark program's past and present aims: namely, the development and production of powerful stories. If you have a moment to turn a few of those pages, I believe that you may see that, despite our differences, and despite the fact that perhaps our paths *appear* to have become “increasingly divergent...”, there is still a sensed bond, a sensed analogy” (of which, more to follow).

You see, even a second or third-rate theorist must *also* be first-rate story-teller, too; otherwise, no matter how far

he<sup>s</sup> travels, and no matter what theoretical heights he may achieve, his works will invariably fall upon deaf ears and confused minds if he does not also have the capacity to simply, clarify, and make them well known. Einstein's revolutionary theories ultimately gained wide acceptance through his endeavours to communicate them to the masses (i.e., Einstein 1920), not through his original papers. Likewise, it was somewhat of a miracle that John Forbes Nash Jr.'s works were discovered at all (they were, essentially, discovered forty years after they were written), because he had no desire (or perhaps limited ability) to clarify and explain the significance of non-cooperative games and the logical implications which followed from them. Fortunately, a few key players eventually grasped what he had done and took it upon themselves to do the explaining for him.

In any case, perhaps the aspect of DS §7 which you (and perhaps my fellow Starkies) may find of most interest is the story I tell near the end (DS, pp 142-148), the story of failed screen-writer who ultimately wrote an equally doomed novel (DS §21 ; cf DS, p 152) which, however, ultimately helped him recognize a great (and widely held) error, and ultimately make a few considerable contributions to knowledge (DS §3–§5, §7–§9, §11–§12, §16-§18).

Once again, Larry, I apologize. I think of you and my fellow Starkies often, and I wish you all well!

I trust you may see that the cross-road between art and science may be difficult to navigate, and at times may present hazardous crossings as we attempt to follow in the footsteps of John Lautner, who believed

the truest model of an American artist is the rebellious idealist from the wilderness who works with stunning... originality..., finding rules only in the laws of nature, and with absolute confidence that truth could emerge only from the force of his own imagination (Olsberg 2008, p 54-63).

Also, prior to proceeding, it may prove useful to back up the tape a bit and review the email I had Bcc'd Turman and consider what it was that I tried (and obviously failed) to communicate to him.

The subject line, as you may recall, read: *On the Avoidance of Mass Extinction: A Modest Proposal*. The email itself actually consisted of a triple email-chain which, in essence, chronicled the telling of a powerful story within a single page: DS §3:

*Subject: On the Avoidance of Mass Extinction: A Modest Proposal*

*Date: Mon, 04 Jan 2010 05:02:34 -0400*

Greetings from Prince Edward Island, Professor Mei,<sup>§</sup>

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§ I am distressed to find that some women friends (fortunately not many) treat the use of the impersonal masculine pronoun as if it showed intention to exclude them. If there were any excluding to be done (happily there isn't) I think I would sooner exclude men, but when I once tentatively tried referring to my abstract reader as 'she', a feminist denounced me for patronizing condescension: I ought to say 'he-or-she', and 'his-or-her'. That is easy to do if you don't care about language, but then if you don't care about language you don't deserve readers of either sex. Here, I have returned to the normal conventions of English pronouns. I may refer to the 'reader' as 'he', but I no more think of my readers as specifically male than a French speaker thinks of a table as female. As a matter of fact I believe I do, more often than not, think of my readers as female, but that is my personal affair and I'd hat to think that such considerations impinged on how I use my native language (Dawkins 1986, pp xvi-xvii).

§ Dongming Mei received his BS in 1983 from Hua Zhong Normal University in China, his M in 2001, and his PhD in 2003 from the University of Alabama. He spent the last three years at Los Alamos National Lab as a post-doc before joining the faculty at USD in the fall of 2006. His teaching duties include Introductory Astronomy and labs. Dr Mei conducted research in Cosmic Ray Physics for ten years at the Tibet Air Shower Array and was an Associate Professor at Tibet University, Tibet, China. He was a Visiting Scholar at the Institute of Cosmic Ray Research in Japan, INFN, *Dipartimento di Fisica dell'Universita*, Napoli, Italy, and the University of Michigan. His PhD from Alabama was based on his research in collaboration with the KamLAND neutrino experiment. As a Post-Doctoral Research Associate with the Weak Interactions Team at Los Alamos National Laboratory, he has been instrumental in a program to develop sophisticated background models for the Majorana, DEAP, and CLEAN experiments using a combination of Monte Carlo techniques and verification experiments in the laboratory. His primary interest is to help create a Deep Underground Science and Engineering Laboratory (DUSEL) at the Homestake Mine in Lead, SD (USD 2010).



I would like to explore the possibility of conducting a curious, interdisciplinary PhD (Physics/Cosmology/Biology/Engineering/Economics) under your guidance at USD.

My remarkable 1-page MA thesis [DS §3], *On the Origin of Mass Extinctions: A Thesis* (attached herewith), offers a concise introduction to my proposed PhD thesis: *On the Avoidance of Mass Extinction: A Modest Proposal*.

I believe you will find my researches – past, present, and proposed – complement your personal endeavours and the broader aims of The University of South Dakota, because interestingly, my proposal offers an unusual, low-cost complement to budding (and future) researches at the DUSEL facility; I also believe my efforts may readily attract interest and support from the NSF, DoD, DOE, NASA, EPSCoR, our National Laboratories, etc.

In fact, I have already begun to reach out to these communities:

*Subject: On the Origin of Mass Extinctions: Darwin's Nontrivial Error*

*Date: Sun, 13 Dec 2009 14:44:30 -0600*

*From: Jianhui Wang, Argonne National Laboratory*

Matt, Great. Keep me posted on your research progress. Congratulations on your publication!

Merry Christmas!

So, Professor Mei, if you are drawn into my thesis and researches, please advise.

Happy New Year!

Sincerely, Matt Funk

*Subject: On the Avoidance of Human Extinction: A Modest Proposal*

*Date: Mon, 4 Jan 2010 09:50:51 -0600*

Thank you very much for contacting me for pursuing a PhD degree with me at USD. I am very interested in your research experience and would like to keep in touch with you when your application is in the process. DUSEL does offer interdisciplinary PhD opportunities. Please submit your application to the USD graduate program: <http://www.usd.edu/graduate-school/index.cfm>.

Thanks again, I look forward to receiving your application package.

Best regards, Dongming<sup>§</sup>

The extraordinary element is not just that I was able to capture Professor Mei's interest with a 1-page thesis – but rather, that this thesis was so powerful and effective that it accomplished its mission within a few *hours*.

Yes, it seems that Willard S. Boyle may have offered some very good advice, indeed [*cf* DS, p 109].

In any case, with this disclosure in mind, I merely request, that you maintain an open mind to the discoveries presented herein, and the personal and creative manner in which I have endeavoured to share them with you. Legend has it that Frank Knight said, “Truth in society is like strychnine in the individual body, medicinal in special conditions and minute doses; otherwise and in general, a deadly poison” (Stigler 1982, p 67). And, to this point, what I ask may not be easy...

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§ Mei's research achievements in underground science to date are largely embodied in detecting neutrinos and dark matter particles. Neutrinos and dark matter are believed to hold the key to physics beyond the standard model, but detecting and measuring their properties are very difficult. Of particular importance for these experiments is a deep understanding of backgrounds. As director of the Center for Underground Background Experiments at DUSEL..., Mei's research is dedicated to understanding the various sources of background and the development of techniques to produce pure materials (USD 2009, p 9).

The openness of the world derives its character from the irreversibility of learning; what is once learned is part of human life. We cannot close our minds to discovery; we cannot stop our ears so that the voices of far-off and strange people can no longer reach them... Neither our integrity as men of learning nor our humanity allows that. In this open world, what is there, any man may try to learn.

This is no new problem. There has always been more to know than one man could know; there have always been modes of feeling that could not move the same heart; there have always been deeply held beliefs that could not be composed into a synthetic union. Yet never before today have the diversity, the complexity, the richness so clearly defied hierarchical order and simplification; never before have we had to understand the complementary, mutually not compatible ways of life and recognize choice between them as the only course of freedom. Never before today has the integrity of the intimate, the detailed, the true art, the integrity of craftsmanship and the preservation of the familiar, of the humorous and the beautiful stood in more massive contrast to the vastness of life, the greatness of the globe, the otherness of people, the otherness of ways, and the all-encompassing dark.

This is a world in which each of us, knowing his limitations, knowing the evils of superficiality and the terrors of fatigue, will have to cling to what is close to him, to what he knows, to what he can do, to his friends and his tradition and his love, lest he be dissolved in a universal confusion and know nothing and love nothing. It is at the same time a world in which none of us can find hieratic prescription or general sanction for any ignorance, any insensitivity, any indifference. When a friend tells us of a new discovery we may not understand, we may not be able to listen without jeopardizing the work that is ours and closer to us; but we cannot find in a book or canon—and we should not seek—grounds for hallowing our ignorance. If a man tells us that he sees differently than we, or that he finds beautiful what we find ugly, we may have to leave the room, from fatigue or trouble; but that is our weakness and our default. If we must live with a perpetual sense that the world and the men in it are greater than we and too much for us, let it be the measure of our virtue that we know this and seek no comfort. Above all, let us not proclaim that the limits of our powers correspond to some special wisdom in our choice of life, of learning, or of beauty.

This balance, this perpetual, precarious, impossible balance between the infinitely open and the intimate, this time—our twentieth century—has been long in coming; but it has come. It is, I think, for us and our children, our only way.

This is for all men. For the artist and for the scientist there is a special problem and a special hope, for in their extraordinarily different ways, in their lives that have increasingly divergent character, there is still a sensed bond, a sensed analogy. Both the man of science and the man of art live always at the edge of mystery, surrounded by it; both always, as the measure of their creation, have had to do with the harmonization of what is new with what is familiar, with the balance between novelty and synthesis, with the struggle to make partial order in total chaos.

They can, in their work and in their lives, help themselves, help one another, and help all men. They can make the paths that connect the villages of arts and sciences with each other and with the world at large the multiple, varied, precious bonds of a true and world-wide community.

This cannot be an easy life. We shall have a rugged time of it to keep our minds open and to keep them deep, to keep our sense of beauty and our ability to make it, and our occasional ability to see it in places remote and strange and unfamiliar; we shall have a rugged time of it, all of us, in keeping these gardens in our villages, in keeping open the manifold, intricate, casual paths, to keep these flourishing in a great, open, windy world; but this, as I see it, is the condition of man; and in this condition we can help, because we can love, one another (Oppenheimer 1955, p 143-146).

With this short discourse on method and requisite disclaimers behind us at last, let's dive back into the heart of the matter by beginning with the end: that is, with a preview of my planned defense of this thesis, as it may help us all find our way by gazing down the road ahead.

*On the Truly Noncooperative Game of Island Life: Introducing a Unified Theory of Value & Evolutionarily Stable Island Economic Development Strategy* (DS §8) may represent the theoretical development which you and the Master of Arts in Island Studies (MAIS) programme may find of greatest relevance and importance. Thus you may wish to lend extra-consideration – or perhaps simply focus entirely upon this singular contribution in consideration for completion of my degree?

As previously noted, I completed my first Master's degree at the University of Southern California's Peter Stark program. Each year, approximately 3,000 students apply for 12-15 slots, and I was one of 13 successful candidates for enrolment in the fall of 1993. Two years later, I was one of 13 “Starkies” who successfully completed and defended my thesis.

The Peter Stark Motion Picture program is one of the most competitive, demanding, highly-ranked, and esteemed Master of Fine Arts programs anywhere in the world. Stark Alumni win Academy Awards, sell million dollar screenplays, and dominate the top echelons of the entertainment industry.

All things considered – given the fact that I already have a Master's degree under my belt, and given the fact that I have dedicated the past decade to the study of scientific method, I believe it may indeed be fair to say that I know a few things about this game.

Thus, during the long winter of 2007-2008, I looked back to my USC days for some guidance insofar as my MAIS thesis was concerned: Each “Starkie” is ultimately challenged to develop a thesis with which they may launch their careers: each thesis must develop a feature film proposal: a screenplay (with story development notes), casting suggestions, a shooting schedule, budget, finance, and marketing plans. The idea is that, upon graduation, each student is thus endowed with a film project to shop around and, ideally, produce, thereby helping students get what they want: to become producers.

And so, in the Peter Stark spirit, I decided to produce something that would help me get what I wanted: Namely, a letter of introduction to an elite group of problem solvers with common interests and evolutionary worldviews: Fellows of The Linnean Society of London. So, I took my most recent and relevant theoretical development, my comparative study of the Mustique Co. (DS §10) and Prince Edward Island (Canada 1970) development plans and a key, foundational game-theoretical solution (DS §7 ; for an abridged outline, *cf* DS §6), and sent them off in a long letter on 12 February 2009.

The following month, I was recommended and elected to Fellowship.

Thus, as previously noted, perhaps you may simply wish to focus upon this singular, nontrivial contribution to knowledge (DS §8) in consideration for completion of my MAIS degree?

But then again, I have travelled far and have much more to offer. Thus, for any and all who may be interested in digging deeper, this thesis explains, contextualizes, concretizes, and unites my inter-related theoretical developments which, once again, develop a unified economic and evolutionary theory of value based upon relative insularity (which, in turn, inform strategy for a wide range of problems – including the problem of sustainable economic development).

However, in light of the fact that DS §8 may represent the most accessible, self-contained, and relevant theoretical development insofar as the MAIS programme aims and objectives are concerned, it is my desire to honour this effort with an end-of-a-long-road celebration: my thesis defense. So, please consider the following defense proposal.

I) I will distribute this thesis to faculty, students, correspondents, friends, critics, and foes, alike, with an open invitation for comments and criticisms (I am ready and fully prepared to defend on any given day). As a matter of fact, the DS opens with a preview and detailed outline of my entire thesis defense, namely, the PowerPoint presentation slides I've prepared for my defense (DS §1).

I would also like to suggest seven entirely optional supplementary, preliminary readings. The first two are the most relevant and important: The Prince Edward Island Development Plan (Canada 1970) and the *Mustique Co. Development Plan* (DS §10). Reading these two short works in advance would, naturally, enable all interested parties to follow along in my footsteps and critique my exhaustive analysis. And, as a side note, I submit DS §10, the previously unpublished and almost entirely unknown Mustique Co. Development Plan, represents a treasure and nontrivial contribution to knowledge by itself.

Also, perhaps voracious readers and relentless problem-solvers may wish to consider the following five additional, “advanced” preliminary readings as well:

- ANDERSON, T., LEAL, D. (1997). *Enviro-Capitalists: Doing Good While Doing Well* (Rowman & Littlefield, Lanham).
- BROWNE, G (2009) *Documents on the Confederation of British North America* (McGill-Queen's Univ Press, Montreal).
- GOLDSMITH, F. (1973). The Ecologist's Role in Development for Tourism: A Case Study in the Caribbean. *Biological Journal of the Linnean Society*, 5:265-287.
- PEARSE, P (1988) Property Rights and the Development of Natural Resource Policies in Canada. *Canadian Public Policy* 14:307-320.
- STORY, J (1840) *A Familiar Exposition of the Constitution of the United States* (Harper, New York).

II) In general, I have structured my defense as a fun, entertaining, highly-conversational, fully interactive and inclusive, multi-media event. Also, in contradistinction to my provocative writings, my objective here is to present my controversial findings in the *least* provocative manner possible. The overall effect is to be a celebration of learning and the advancement of science. Indeed, other than asking a few questions designed to spark conversation and self-discovery, I plan to say very little for the first hour of my three or four hour defense, which I have taken the liberty to schedule to commence at 1:00 PM on 21 June, in the conference suite at The Atlantic Technology Center.

I propose that it would go something like this: As attendees enter the suite they will be greeted with the following Socratic epigraph, my first crucial presentation slide:

*[Do not] believe anything that I suggest! Please do not believe a word! I know that that is asking too much, as I will speak only the truth, as well as I can. But I warn you: I know nothing, or almost nothing. We all know nothing or almost nothing. I conjecture that that is a basic fact of life. We know nothing, we can only conjecture: we guess.*

– Sir Karl Popper, *All life is Problem Solving*, 1999

III) Once my guests have been seated and had a moment to consider this critical disclosure, I propose to make a very brief introduction, then move into a four minute short film:<sup>§</sup> <http://www.youtube.com/watch?v=CoM3ubcknqM>

If you have a moment to review this short, silent film, please imagine a rendition subtly scored with the four minute and forty second version of *Southern Cross*, recorded live at Universal Amphitheatre in Los Angeles in 1983. In fact, you may find that *Southern Cross* may offer a fitting score to this wayward sailor's international island saga (somebody named Lee seems to have captured the essence which I'm attempting to conjure);<sup>£</sup> if you have *Daylight Again* sitting around, the studio recording may also pair with this letter rather well.

But getting back to our feature presentation: Following this four minute short, I propose to open the floor to questions and comments, inviting any and all to contribute, but merely requesting to first hear from any of those in the

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<sup>§</sup> We no longer live in a world driven by print. More and more of our world is driven by video and images.... The average American reads one book a year, but watches four hours of TV a day. TV is our global *Lingua Franca*. It is the way in which we, as a global culture, communicate. Television is a vastly powerful medium, but inexpensive editing tools..., small laptop editing systems, and inexpensive video cameras are the Gutenberg's printing press of the Digital Age. They make it possible, as did the printing press, for anyone with an idea to publish.... What was once the exclusive domain of CBS or NBC or Fox is now open to anyone who has something to say (McCabe 2003, pp 15-16).

<sup>£</sup> Posted by Chrissy on 5/15/2008 11:53am

I love this song...lol, not very elabortive [sic.]..., I know...

Posted by Lee on 5/17/2008 9:39pm

Chrissy, you said it just fine...I love this song too. It's got a great melody and vocals (just read that Art Garfunkel was actually one of the background singers), paints a beautiful picture, and makes an amazing statement about the human condition: "So we cheated and we lied and we tested, and we never failed to fail, it was the easiest thing to do." I think that's true of all of us deep down in our core (Lyrics Depot 2008).

audience whom may not be familiar with the two islands featured in the film. I simply wish to ask willing participants to describe what they saw and speculate a bit about the differences between the contrasting landscapes. I would also like to hear some speculation as to *why* these islands may be so different and *how* those differences may have evolved.

I might also add that, in the course of this 15-20 minute conversation (which, naturally, I would allow to unfold until all had had the opportunity, to share, comment, criticize, and ask questions), I would eventually offer an introduction to these two islands and suggest how my thesis accounts for their striking differences.

But I would say as little as possible, and, most of all, I would be listening very carefully, trying to learn as much as possible; as this conversation runs out of steam, I would queue the second half of the documentary into the projector.

IV) Once again, my *modus operandi* is to roll the film with no introduction.

However, prior to dimming the lights and setting sail for another island's shores, I would ask my guests to kindly endeavour to hold two difficult, arguably unanswerable, yet crucial questions in the backs of their minds throughout the film:

*Is the Canadian Constitution effective?* [cf Russell 1993]

*Is the Canadian Constitution effective for Prince Edward Islanders?*

With these two questions in mind, lights dim and in time familiar images will flicker upon the screen – bucolic stills from the north shores, farms, countryside, and wharfs of Prince Edward Island in 1967 – as the first of two parts of *Prince Edward Island Development Plan* begins. Here's the Robertson Library catalogue copy for this incredible documentary:

*Prince Edward Island Development Plan* [DVD]. HC117.P75N52. The National Film Board for in cooperation with Department and Agencies of the Government of Canada. Montreal, Quebec. 2 videodiscs (113 minutes). Directed by Roger Hart; produced by Barrie Howells and George Stoney. Two videos, six months apart, different in content but both dealing with the comprehensive social and economic development plan for Prince Edward Island. In essence they are a study of the dynamics of the plan, the relationships and communication (or lack of) between the planners and the planned-for, and between the planners and the governments involved. Part 1 – *Ten days in September* – shows the events, over a ten-day period that led up to the plan. Part 2 – *Four days in March* – is a four day follow-up at the time of the signing of the paper to implement the plan [Howells & Stoney 2006].

61 minutes later, as the first half concludes, I'll offer a restroom break.

V) Once my audience returns, I'll open a conversation regarding the first half of the film.

I will bypass details here, but, in essence, my object is, once again, neither to lead nor attempt to direct the conversation, only to help keep it going, answer questions, and, again, to listen very carefully.

VI-VII) Here I would like to retrace steps IV and V with the second half of the film, which is ten minutes shorter than the first; Q&A could directly follow the second half before breaking for a second intermission. I'd also like to leave room for improvisation at this point, to delve into as much or as little of this thesis, DS §10, and/or all theoretical developments cited herein, as directed by my guests' indications and suggestions.

If there's any desire to discuss my present PhD endeavour and/or future research plans, so be it.

In short, I'm flexible.

Following this conversation, I would simply thank all for attending, adding that all were certainly welcome but not obligated to stay for the eighth and final act: my defense.

VIII) At this juncture I would simply turn the floor over to the committee for what may be the least interesting aspect of my thesis, especially as it relates back to the Socratic epigraph in step I): I'm not an expert of anything, and have little desire to try to persuade anyone otherwise. Alas this does appear to be a requirement which I will nonetheless endeavour to fulfil. In truth, I think it would be far more interesting to stage a defense such that a committee try to defend my thesis while I, on the other hand, attacked it, drawing as much attention as possible to all that I have failed to achieve, demonstrating what I have failed to clarify, and noting how much I have left undone. And of course I am also obliged to note to all remaining in attendance at this juncture that I, like Sir Karl Popper, do not believe that there are any experts of anything, anywhere.

And thus I propose to begin the eighth and final inning of my thesis defense with another crucial slide, a fitting book-ending to the slide which greeted attendees four hours prior:

*As a rule, I begin my lectures on Scientific Method by telling my students that scientific method does not exist. I add that I ought to know, having been, for a time at least, the one and only professor of this non-existent subject within the British Commonwealth.*

*It is in several senses that my subject does not exist, and I shall mention a few of them.*

*First, my subject does not exist because subject matters in general do not exist. There are no subject matters; no branches of learning—or, rather, of inquiry: there are only problems, and the urge to solve them. A science such as botany or chemistry (or say, physical chemistry, or electrochemistry) is, I contend, merely an administrative unit. University administrators have a difficult job anyway, and it is a great convenience to them to work on the assumption that there are some named subjects, with chairs attached to them to be filled by the experts in these subjects. I do not agree: even serious students are misled by the myth of the subject. And I should be reluctant to call anything that misleads a person a convenience to that person.*

*So much about the non-existence of subjects in general. But Scientific Method holds a somewhat peculiar position in being even less existent than some other non-existent subjects.*

*What I mean is this. The founders of the subject, Plato, Aristotle, Bacon and Descartes, as well as most of their successors, for*

example John Stuart Mill, believed that there existed a method of finding scientific truth. In a later and slightly more sceptical period there were methodologists who believed that there existed a method, if not of finding a true theory, then at least of ascertaining whether or not some given hypothesis was true; or (even more sceptical) whether some given hypothesis was at least 'probable' to some ascertainable degree.

I assert that no scientific method exists in any of these three senses. To put it in a more direct way:

(i) There is no method of discovering a scientific theory.

(ii) There is no method of ascertaining the truth of a scientific hypothesis, i.e., no method of verification.

(iii) There is no method of ascertaining whether a hypothesis is 'probable', or probably true.

– Sir Karl Popper, *On the Non-Existence of Scientific Method*, 1956

And that's the end of my proposed thesis defense.

But in the spirit of full disclosure, there is a counter-point to note: Despite the fact that my writings have proven somewhat popular with you, a half-dozen classmates, Drs Boyle, Kanipe, Gardiner, Sloan, Falzon, and a few other distinguished scholars I will introduce and call upon to testify (as you proceed, perhaps it may occur to you that this thesis was written with a built-in thesis defense), my theories have not been generally well-received.

In fact, they've faced fierce opposition and proven remarkably difficult to advance; (cf DS §5, §7 ; APPENDIX III).

For every battle I've won, I lost ten others.

This is in large part due to the fact that I am, essentially, simply endeavouring to forward Sir Karl Popper's unfashionable solution to David Hume's problem of induction (cf DS, pp 589-591).<sup>§</sup>

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<sup>§</sup> In intellectual circles Popper was very much admired. But because *The Open Society and Its Enemies* was hostile to so much academic pretension it was treated less than respectfully by those in the various specialties upon whose turf it trod....

In 1950, Popper went to Harvard to deliver the prestigious William James lectures. During his time in the States he appears to have given a talk at the University of Chicago, where Strauss taught. Strauss told Voegelin that the talk 'was very bad,' 'the most washed-out, lifeless positivism'..., and inquired of his opinion of Popper. Voegelin replied with a vicious letter. He reports having reluctantly read Popper because so many people insist his *Open Society* is a masterpiece. His judgment is that the book is 'impudent, dilettantish crap. Every single sentence is a scandal...' Noting that Popper takes the concept of open society from Bergson, he comments that Bergson did not develop it 'for the sole purpose that the coffeehouse scum might have some-thing to botch.' Voegelin believed that Bergson would have thought that 'Popper's idea of the open society is ideological rubbish'... Voegelin is only just getting started. He accuses Popper of 'impertinent disregard for the achievements in this particular problem area [the history of political thought]'... and of being unable to reproduce accurately the ideas of Plato and Hegel. Popper is 'a primitive ideological brawler.' Voegelin then strings more epithets together, 'a failed intellectual,' 'rascally impertinent, loutish; in terms of technical competence as a piece in the history of thought, it is dilettantish, and as a result is worthless'... The reader astonished at this undignified diatribe needs to remember that in the book in question Popper is vehement about the duty to think for oneself and not to defer to the authority of experts. Strauss and Voegelin agree on the opposite, and on the duty of the enlightened elite to defend standards. Strauss had said he was willing to keep Voegelin's remarks to himself. Voegelin concludes: 'It would not be suitable to show this letter to the unqualified. Where it concerns its factual contents, I would see it as a violation of the vocational duty you identified, to support this scandal through silence'... Following this invitation, Strauss showed the letter to Kurt Riezler, 'who was thereby encouraged to throw his not inconsiderable influence into the balance against Popper's probable appointment here [in the US]. 'You thereby helped to prevent a scandal.' With hindsight one might think that the scandal is that someone who had dared to challenge the traditional Germanic learning, the worship of the great men, the enemies of science and Enlightenment, is not met out in the open with argument, but is disposed of behind the scenes, as quietly as possible, by the self-righteous use of power (Jarvie & Pralong 1999, pp 6-7).



And as Popper and Einstein have lamented, nothing is less wanted nor more despised than a simple solution to an old problem.<sup>£</sup> Consider, for example, perhaps my most remarkable achievement to date, an endorsement to post *On the Origin of Mass Extinctions: Darwin's Nontrivial Error* (DS §5) to the arXiv...

*Subject: You now can submit to physics.soc-ph*

*Date: Tue, 9 Feb 2010 00:59:57 -0500*

*From: www-admin@arxiv.org*

You've just been endorsed to submit papers to the arXiv subject class physics.soc-ph (Physics and Society). Visit <http://arxiv.org/submit/> to submit papers.

But this was not actually the harbinger of victory, but rather a prelude to battle.

But before visiting the battlefield, a celebration of this arXiv-worthy development may help set the stage: an exchange which, as the great American poet Daniel S. Loeb (*cf* DS, pp 442-443) says, reads from the bottom, up:

*Subject: On Optimism*

*Sent: Wed, Apr 14, 2010 2:51 pm*

*From: Matt Funk*

*To: Matt Allen*

Wow Matt, thanks for reading and thank you for your compliments – they're much appreciated. I'm particularly glad to hear that you remain optimistic – a state which has not always been easy for me to maintain, especially in light of the great difficulty advancing what you have noted should be a “no-brainer” – alas, teleological thinking is so deeply entrenched into human culture that it is incredibly difficult to overcome. Indeed, in so many ways we are still waiting for the Copernican Revolution [1543] to occur.

Your optimistic note also reminded me of a similar compliment I received from a generous Professor in January:

*Subject: On the Origin of Mass Extinctions: Darwin's Nontrivial Error*

*Date: Tue, 26 Jan 2010 09:01:02 -0400*

*From: Edward MacDonald*

Matt, Had a quick perusal of your piece. Congratulations on it. I like how your argument manages to be critical but positive at the same time. Without perhaps meaning to, it seems to play off the 19<sup>th</sup> century concept of Social Darwinism, which extended the “survival of the fittest” element of Darwinian theory beyond biological organisms to social structures. But you don't fall into that error.

Keep stirring the pot!

In any case, my friend, thanks again for turning those pages. I know you're busy, but if you have time, I'd love to hear what you've been up to at NBC – as I noted in my paper, the development of rapid, powerful, and free-flowing communication channels may be paramount for long-term human survival, and it appears you may be involved with some interesting initiatives along those lines.

I look forward to getting together with you on my next trip to LA.

Stay in touch and keep the faith!

Best, Matt

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£ Great spirits have always found violent opposition from mediocrities. The latter cannot understand it when a man does not thoughtlessly submit to hereditary prejudices, but honestly and courageously uses his intelligence and fulfills the duty to express the results of his thought in clear form (Einstein 1940).

*On 14/04/2010 at 6:00 PM, Matt Allen wrote:*

Hey Matt,

I just finished reading your dissertation and I find it so fascinating. Now I'm certainly not a scientist by any stretch of the imagination and definitely not a religious guy, but I found your observations to be such a seeming no-brainer that I'm shocked (well, maybe not all that shocked), that what you discuss hasn't been more widely accepted... or at least thought of.

Anyway, thanks for letting me take a read. Very, very interesting stuff. And I still remain an optimist. :)

*On 09/04/2010 at 4:59 pm, Matt Funk wrote:*

It has been quite awhile, hasn't it!

I've begun toiling away on a dissertation and working a few problems that keep me up late at night – if you have time to spare, take a peek at a forthcoming publication: *On the Origin of Mass Extinctions: Darwin's Nontrivial Error* – <http://mpira.ub.uni-muenchen.de/20193/>

Otherwise, all is well from the North Atlantic – looks like LA has been treating you well – how's life at NBC?

Great to be back in touch!

Yes, my friend Matt Allen had noted,

I found your observations to be such a seeming no-brainer that I'm shocked (well, maybe not all that shocked), that what you discuss hasn't been more widely accepted... or at least thought of.

And this is exactly why I felt it was crucial to contribute this paper to the arXiv.

I imagine you may be aware how difficult an arXiv endorsement is to attain – many notable physicists, including at least one Nobel-prize winner, have spent years failing to obtain such an endorsement.

And thus I wasn't entirely surprised that my great victory was incredibly short-lived:

*Subject: arXiv:1002.1779 Removed*

*Date: Tue, 09 Feb 2010 10:26:48 -0500*

*From: www-admin@arxiv.org*

Your submission has been removed upon a notice from our moderators, who determined it inappropriate for arXiv.

If you disagree with this determination, please do not resubmit the submission to any archive until you first explain the reason to [moderation@arxiv.org](mailto:moderation@arxiv.org) and receive a positive response.

Yes, teleological thinking may be more problematic than many are able to comprehend. Even the great Albert Einstein couldn't handle the idea that “God plays the dice”, so to speak.

But I have a thunderbolt for a weapon (DS, p 263).

I remain steadfast, undaunted, and simply redouble efforts in the face of adversity. I never stop speculating, never close my mind to discovery, and, above all, though I may stumble, I never cease my relentless search for truth and solutions to some of the most difficult problems on Earth.<sup>§</sup>

They say love is a battlefield – but universities are battlefields too, battlefields where truths are won, lost, and retaken on any given day. As one of my heroes observed,

Becker has suggested that a substantial resistance to the acceptance of new ideas by scientists can be explained by two familiar economic concepts. One is the concept of specific human capital: the established scholar possesses a valuable capital asset in his command over a particular body of knowledge. That capital would be reduced if his knowledge were made obsolete by the general acceptance of a new theory. Hence, established scholars should, in their own self-interest, attack new theories (Stigler 1982, p 65).

And thus the war wages on.

Furthermore, I'm blessed, cursed, strengthened, invigorated, and propelled onto the battlefield by my conviction that I'm fighting for nothing less than the very survival of the human race:

*Subject: A Thunderbolt for a Weapon [cf DS, p 263].*

*Date: Tue, 09 Feb 2010 20:42:26 -0400*

Dear arXiv-moderation,

I am writing to explain my disagreement with this determination and why I wish to resubmit my submission.<sup>£</sup>

I have copied several emails, below, which clearly illustrate the unimpeachable integrity of my endorsement, and the relevance and significance of my nontrivial submission.

I will bring forward testimony from Terry Sloan and author Jeff Kanipe.

First, in the event that you may not be acquainted with my endorser, Terry Sloan, I will offer a few words of introduction and an important background note: First and foremost, I have never met Dr Sloan, I am not affiliated with Lancaster University, I am not one of Dr. Sloan's proteges, and I am not affiliated with his researches in any way. Thus it appears unlikely that favouritism has played any role with his endorsement.

Dr Sloan, as you may know, is Professor Emeritus at Lancaster University.

In 1948–1955, he attended Hindley and Abram Grammar School. In 1955–1963, he was a student at Liverpool University. He received his PhD degree in 1963. In 1963–1966, he was a Research Associate at University of Pennsylvania. In 1966–2003, he was lecturer then a Professor of physics at Lancaster University and, in 1983–1988, a Spokesperson of EMC at CERN when he discovered EMC spin effect. Papers on this topic are among the most highly cited in experimental particle physics. Terry Sloan was

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§ The fascination of scientific work does not lie in the craftsmanlike utilization of the tools of a science. It is admirable for the gymnast to put his splendidly disciplined body through intricate manoeuvres, and it is no doubt equally admirable for the scientist to put his disciplined mind through a sequence of complex analytical or experimental manoeuvres. The great fascination of scientific endeavour, however, is precisely in the speculative pursuit of new ideas that will widen the horizon of our understanding of the world. This endeavour is not that of a graceful intellectual gymnast: on the contrary, the scientist is stumbling about in a jungle of ideas or facts that seem to defy... logic (Stigler 1982, p 70).

£ The results of failure in politeness, however bad from the point of view of social occasion, are admirable from the point of view of dispelling myths. There are two ways in which our natural beliefs are corrected: one the contact with fact, as when we mistake a poisonous fungus for a mushroom and suffer pain in consequence; the other, when our beliefs conflict, not directly with objective fact, but with the opposite beliefs of other men (Russell 1928 pp 17-18).

awarded the Rutherford Medal of the Institute of Physics in 1992. In 1988–1995, he was a Member of ALEPH Collaboration at CERN. Since 1995, he is a Member of H1 Collaboration at DESY. His notable achievements are discovery that heavy quark photoproduction is mediated by photon-gluon fusion, investigation of the idea and implementation of the measurement of the EMC spin effect, and the discovery of shadowing in deep inelastic scattering, measurement of the branching ratio for  $b$  to  $s$  gamma decay. Currently, he is working to detect ultra-high energy neutrinos by an underwater hydrophone array and also trying to prove a connection between cosmic rays and global warming (Hindawi 2007).

Now, please consider a few relevant illuminations:

*Subject: You now can submit to physics.soc-ph*

*Date: Tue, 9 Feb 2010 09:27:34 +0000 (GMT)*

Dear Matt, Congratulations on your publication. It is an amusing warning but sometimes there are complications in posting papers on the arxiv.

Anyway well done. It is nice to know that great men such as Darwin sometimes make mistakes. Einstein also made a big mistake. He wasted the last years of his life trying to disprove quantum mechanics which is now in everyday use. This was the source of his famous quotation “God does not play dice” – referring to its probabilistic nature.

All the best,

Kind regards, Terry.

First, it seems worth noting that Dr Sloan implied that he had *learned* something, that he had *gained* by reading my paper. Given Dr Sloan's background,<sup>s</sup> it seems reasonable that I could rest my defense at this juncture, but I will offer some tasty icing for this beautiful cake.

Please consider three brief exchanges which preceded the reply, above [and note reverse chronological order]:

*Subject: You now can submit to physics.soc-ph*

*Date: Tue, 09 Feb 2010 03:30:46 -0400*

Dear Terry,

I loved that tense moment, near the end of my submission, when I came upon that great warning sign:

*Read carefully the information below, recite aloud the English alphabet backwards starting from Z, breathe deeply, read carefully the information below once again, and then with a suitable pause (at least 10 seconds) you should CLICK HERE TO PROCEED.*

I also noted the final reminders, at the very end, which began “Successful submission to the archives can be a significant source of pride and accomplishment..”

It is indeed a great source of pride and accomplishment: I am honoured.

Thank very much for your time, consideration, and generous endorsement.

Best wishes, Matt.

*On 02/02/2010 12:31 PM, Terry Sloan wrote: Hi Matt,*

Thanks for your appreciation of our paper [Sloan & Wolfendale 2000].

I am on holiday in Malta until the weekend and it is difficult to download files. I look forward to having a look at your paper when I return home on Saturday.

I will e-mail you during the weekend.

Regards, Terry.

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<sup>s</sup> Sloan 2008 ; Sloan *et. al.* 2009a, 2009b, 2009c, 2009d, 2009e, 2009f, 2009g, 2009h, 2009i, 2009j, 2009k, 2009l, 2009m, 2009n, 2008a 2008b, 2008c, 2007a, 2007b ; Sloan, Erlykin & Wolfendale 2009 ; Sloan & Wolfendale 2000, &c.

*Subject: Man Made GlobalWarming Explained [Sloan & Wolfendale 2000]*

*Date: Mon, 1 Feb 2010*

Greetings from Prince Edward Island, Terry,

Excellent paper – indeed you have explained it all quite clearly!

I have attached a forthcoming publication, *On the Origin of Mass Extinctions: Darwin's Nontrivial Error*, which I would love to contribute to the arXiv.

If you have a moment, I would appreciate it if you would skim a few pages to see if you would feel comfortable offering your endorsement.

Thank you!

From here, please consider three sincere and much-appreciated communiques from astronomer and author Jeff Kanipe, the first being his reception to the news that I had been honoured with an arXiv endorsement:

*Subject: You now can submit to physics.soc-ph*

*Date: Tue, 9 Feb 2010 12:36:21 -0500*

Matt,

A good thing! arXiv is an excellent and well-perused venue and I'm sure you'll find a new home there. I go to it almost every day.

By the way, I wrote an article for *Nature* (“Climate change: A cosmic connection,” *Nature* 443, 141-143, 13 Sept. 2006 doi:10.1038/443141) that reports on Svensmark's work on cosmic rays and cloud cover. I quoted Stefan Rahmstorf as the counter point. If I were to do the article again, I'd contact Sloan! His recent paper *Man Made GlobalWarming Explained* [2000], posted on arXiv [arXiv:1001.4988v3] is excellent. Jeff.

This following email-chain revisits Kanipe's (whom was also unknown to me at the time, by the way) reception of two of my core theoretical developments, one of which being *Darwin's Nontrivial Error*:

*Subject: Nontrivial indeed*

*Date: Tue, 1 Dec 2009 15:36:57 -0500*

Hello Matt,

I must say I'm very impressed by your paper on *Darwin's Nontrivial Error*. Will this... be published? I certainly hope so, as you raise some fascinating points that I'm sure would spur further discussion.

I especially appreciate your generous direct reference to my book in the text. My publisher is planning a reception for the press at the January meeting of the American Astronomical Society in D.C., and I'm thinking about waving your paper around as well. I can say, “See? See? I did good!”

What was interesting for me was to see how you applied my points to yours, although they are ones that I'm embarrassed to say I didn't fully consider at the time! It leaves me feeling I accomplished something greater than what I first set out to do!

For example, Gould's statement on page 4, concerning how competition in a world teeming with species unfolds in one of two ways, either as a “struggle by battle” or a “struggle against an inclement environment,” made me reflect back to my chapter on asteroids and asteroid mitigation – *i.e.*, if we're going to save the world from a potential global extinction event by an asteroid, we're going to have to have some cooperation by other countries. Similarly, we would have to trump the survival-of-the-fittest mantra in the face of a megatsunami or catastrophic volcanic explosion, which would also not be geographically limited disasters. (The same can be said of thermonuclear war, although I'm not sure all of our world leaders are on board with this.) At any rate, Gould's remarks, coupled with the two points you make in the following paragraph, clearly indicate that civilization is facing an imminent crossroads at which we either choose the path of global cooperation and the hope for continued existence, or stick with Darwinian processes and risk not surviving as a species. Such a juncture could be the next “great filter” we face, one that will either eliminate us from

the picture or allows us to pass.

Said another way, if we are to survive as a species-as Earthlings-we must now take the high road, whereby we cooperatively struggle against the “inclement environment” of our planet in space, rather than just localized inclement environments on Earth. Natural selection, *per se*, takes a back seat to global extinction events; in fact, it may not even be in the car.

Now, suddenly, the idea of the possibility of other intelligent life forms in the universe takes on new meaning: natural selection of a species on small scales versus natural selection of a species on cosmic scales. I wish I had raised that point in my book!

And I do feel your pain on page 8, where you wonder how our civilization can survive if less than .01% of the world's population can apprehend the true meaning of the fossil record. As you state, that's a staggering failure rate of 99.99% in a so-called race of intelligent beings. That alone says two things about our species: that we're not only arrogant, we're also apparently not as intelligent as our arrogance leads us to believe. But this is coming from two frustrated visionaries who have stood on the shoulders of other frustrated visionaries. You and I are in good company, anyhow, as is illustrated by the following quotation:

Such is the history of it. Man has been here 32,000 years. That it took a hundred million years to prepare the world for him is proof that that is what it was done for. I suppose it is. I dunno. If the Eiffel Tower were now representing the world's age, the skin of paint on the pinnacle-knob at its summit would represent man's share of that age; and anybody would perceive that that skin was what the tower was built for. I reckon they would, I dunno.

—Mark Twain, *Was the World Made for Man?*, 1903 [cf Atmar 2008, p 6]<sup>§</sup>

Thanks, Matt, for thoroughly stimulating my brain cells.

Keep 'em coming.

Jeff

*Subject: Thanksgiving*

*Date: Mon, 23 Nov 2009 02:59:41 -0400*

Dear Jeff, As my wife and I prepare to head to Chicago for Thanksgiving, I've added the unexpected kindness of a gentleman, scholar, and gifted author to my list of things to be thankful for – I've thought of your kind note many times over the past few days.

I'm very glad that you appreciated my emphasis upon Humboldt. I've spent much of the past year reviewing his collected works [*e.g.*, 1845 ; 1817 ; 1814 ; 1811 ; 1807 ; Humboldt & Bonpland 1814], and I believe you are right, the near-extinction of natural philosophy is a tragic loss. His *Personal Narrative* [1814] stands as a truly great treasure, and Helferich's [2004] *Humboldt's Cosmos: Alexander von Humboldt and the Latin American Journey that Changed the World* is a gem I am sure you would enjoy. And thank you for the link to Bostrom's paper [2008], he's right on the mark – I especially appreciated his critique of Sagan's flimsy conjecture – it seems Dobzhansky would have whole-heartedly agreed as well.<sup>£</sup>

As for *Darwin's nontrivial error*, I have endeavoured to answer your question with the attached: *On the Origin of Extinctions: Darwin's Nontrivial Error* [DS §5].

If you're curious about how it was that I stumbled upon this error, I'll offer some background.

As is often the case, the exploration of several islands (two in particular) led to a few revelations about the island of Earth. In brief, I set off in search of a solution to *The Problem of Sustainable Economic Development* (*i.e.*, *The Tragedy of the Commons*) [Hardin 1968 ; DS §9] on islands, and, during

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§ Twain's 1903 essay on the age of the Earth was instrumental in the public's acceptance of the new sciences of geology, paleontology and evolutionary biology (Atmar 2008, p 3 ; cf Wallace 1903).

£ One can argue that all environments are hostile, and that death and extinction are probable events, while survival is improbable. Just how life has managed to overcome this improbability is a problem which many biologists find challenging and fascinating. In my opinion, this problem may well be used as the framework on which to build the teaching of biology (Dobzhansky 1964, p 450).

this quest I discovered that any tenable solution must address a problem that Wieser [1893] identified and Stigler [1982] highlighted: Economics has no theory of value. As I struggled with this, I soon realized that any such theory must be unified with evolutionary theory in order to be thinkable and true. And thus, over the past three years, I developed a unified theory of economic and evolutionary value – the paper you kindly reviewed [DS §7] serves as its game-theoretical foundation.

I delivered this finding in a long letter in February [DS §8], and this development was largely due to a stroke of luck and the extraordinary generosity of my cousins, Ben and Zarina Funk, who had invited my wife and I down to explore Mustique last winter (and, miraculously, again last month, see: <http://funkisland.org/> for a few choice photos).

In short, I was living on the island which modelled the problem [*cf* DS §8],<sup>§</sup> but, until I stumbled upon Mustique, I had been unable to grasp the solution. I've attached a paper I discovered prior to our first Mustique expedition, a paper published, curiously, in the *Biological Journal of the Linnean Society: Goldsmith's The Ecologist's Role in the Development for Tourism: A Case Study in the Caribbean* (1973). This was the paper that really started it all; I charted this discovery in [DS §8].

And as for the link to Darwin's "nontrivial error", perhaps one my most surprising discoveries is that evolutionary stable economic development strategy differs diametrically between islands (and other 'relatively insular states, RIS) and what I refer to as "Globalized Economic Military Superpowers" (GEMS), and, moreover, that each strategy also happens to be complimentary at the global level [DS §7]. In other words, all "players" (RIS & GEMS, *e.g.*, the entire Earth) benefit most when all players pursue selfish objectives – even though these development objectives happen to conflict with each other.

And I've bored you with this long explanation because I happen to believe you may readily see why: although Mustique (and others, *e.g.*, Roque, Little St. Simons, Sea Island [Martin 1978], The Huron Mountain Club [*cf* Flaspohler & Meine 2006, Anderson & Leal 1997, DS §20], Ted Turner's rangeland holdings [Turner 2008 ; Anderson & Leal 1997], and private interests along the Cascapedia River [Carmichael 2006]) has effectively insured the preservation its ecology and economy, in the long run, all islands and relatively insular states are completely dependent upon GEMS (NASA, our DoD, and the European Space Agency in particular) to protect the planetary ecology from cosmic inputs and, ultimately, to derive a means for Ultra-Long Distance Dispersal – and this, as I've outlined, is made possible through the aggressive pursuit of maximum economic development. And to this controversial point, as you may not be surprised to hear, my solution has been poorly received. I attribute this to many obvious and not-so-obvious factors, but I'll quickly note three:

- 1). As Popper remarked, "nothing seems less wanted than a simple solution to an age-old philosophical problem" (*cf* DS §4).
- 2). On the economic side of the equation, my theory of value [DS §4] acknowledges the fact that economic power is derivative of military power [DS §11 ; *cf* Aumann 2006, Roosevelt 1900 ; Churchill 1948-1954 ; Desha 1922, ; Renatus 390 ; Lincoln 1863 ; Barton 1930], and this reality remains largely unknown or rejected outright by those who wish it were otherwise.
- 3). On the evolutionary side, it seems that Darwin's nontrivial error has obfuscated the fact that there was an evolutionary problem to begin with!

I apologize: I'm sure this is much more than you had bargained for as an answer to your question!

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§ The historical development of island peoples bears always in greater or less degree the stamp of isolation; but this isolation may lead to opposite cultural results. It may mean in one case retardation, in another accelerated development. Its geographical advantages are distinctly relative, increasing rapidly with a rising scale of civilization. Therefore in an island habitat the [human] factor may operate with or against the geographic factor in producing a desirable historical result (Semple 1911, p 505).

But finally, regarding your generous postscript: Some things are too beautiful to approach directly (which is one reason why Ayn Rand believed that we need art) and are best addressed indirectly. Thus I will merely say thank you with an email which your postscript inspired...

*Subject: Perpetua*

*Date: Fri, 20 Nov 2009 00:27:47 -0400*

Dear Aunt Charlotte & Uncle Chuck,

I received a nice note from the author of a great (and, as you'll see, highly recommended) new book which I'm sending your way: *Cosmic Connection: How Astronomical Events Impact Life on Earth*), and I thought I'd share it with you.

Over the past two years I've been struggling to communicate a rather complex theoretical development, but Kanipe's communique gives me hope because it represents the first sign that somebody understands what I've been trying to say! So this is some good news in of itself, but there's a rather surprising personal aspect to this exchange that I also wanted to share. I've copied my original email (below), his reply, and, curiously, the last page to a novel [DS §21] which I left with you in Cleveland several years ago. I've also attached the paper [DS §7] I had sent along to the author because he closed his note to me with a reference to it in his postscript, and this may represent one of the most beautiful things anybody has ever said to me – and I hope that you both might find some beauty in it, too.

I love you both and think of you, Chann, Holley, and Angie often – every now and then I copy you on an email in order to let you know what's going on here on PEI, but I hope that Marcy and I will be able to catch up with you in person very soon!

Happy Thanksgiving! Love, Matt

*Subject: Stellar evolution*

*Date: Wed, 18 Nov 2009 16:11:54 -0400*

Greetings from Prince Edward Island, Jeff,

I was fortunate enough to find your *Cosmic Connection* [Kanipe 2009] on the “new publications” shelf at our University library yesterday, and I'm 213 pages in!

I've spent a good part of the past three years attempting to forward the logical implications of this profound “connection” as it relates to evolutionary and economic theory, and politico-economic survival strategies. As a Linnean Fellow, I especially appreciated your speculative conversation with Darwin, and believe you may be very interested in a paper which I hope to have finished by the end of the week (it details Darwin's nontrivial error insofar as mass extinctions are concerned – Gould detailed this error at length in his highly-recommended 2002 magnum opus, *The Structure of Evolutionary Theory*). In the meantime, you may appreciate the paper attached herewith [DS §7]. In short, it is extremely frustrating (not to mention frightening) that, while there seems to be no shortage of funding when it comes to issues such as global warming, AIDS, malaria, third-world poverty, *etc.*, that funding is so lacking when it comes to truly life threatening (as in all life on Earth) cosmic inputs (especially those, such as asteroid impacts, which we may have a reasonable chance of preventing). Ironically, the most life-saving, truly philanthropic gifts would be directed to NASA, the European Space Agency, and the DoD (I am a fellow American, by the way), but almost no private-sector charities direct funds in any of these directions). I might also add that I sympathized with your attempt to bring cosmic inputs to the attention of the department of Homeland Security – I have attempted to bring a four-page brief summary of the



paper attached herewith to the director of LANL to no avail [DS, p 162] – apparently he's either already fully-aware and well-versed in these issues or, more likely, perhaps, unable to grasp them within the context of national security and/or human survival).

In any case, Jeff, congratulations – your book is excellent and much-needed, thank you. Needless to say, I'll recommend it to everyone I know!

Sincerely, Matt Funk

*Subject: Stellar evolution*

*Date: Thu, 19 Nov 2009 16:22:46 -0500*

Hello Matt,

To receive such a flattering note from a surfer-poet is indeed a first for me! Thank you very much.

I read your attached paper [DS §7] and found it intriguing, particularly the reference to Humboldt and his approach to nature from a generalist perspective. You articulate what I believe is a significant stumbling block in science today. I know of only a few astronomers whom I would consider “natural philosophers,” all the rest are specialists-searching all their lives for lithium in old stars or the initial mass function of early type galaxies. In science, specializing, it seems, is a necessary evil, but it is also why I decided not to pursue a doctorate in astronomy, but focused, instead, on science journalism. It allowed me to sample whatever I wanted from the buffet, rather than constantly return to the roast beef. I like to say that my knowledge of science is as wide as the Mississippi, but only a few inches deep – deeper than that in some places.

I plan to study your paper further and would very much appreciate seeing the one you are currently working on concerning Darwin's views on mass extinctions. I've not read Gould's book. What, exactly, was Darwin's “nontrivial error” in this respect? Was he not thinking broadly enough about how mass die-off's due to cosmic interventions contribute to natural selection? I don't believe asteroid impacts were part of the natural selection parlance in Darwin's day!

On a somewhat related topic, have you heard of the work of Robin Hanson and/or Nick Bostrom and their speculations about “Great Filters?” I found Bostrom's article “Where Are They?” [2008] particularly fascinating... It's a subject I wanted to fit into *Cosmic Connection* [Kanipe 2009], though I would have had to shoehorn it in. I guess you might say I was thinking too broadly!

Once again, many thanks for your note and for recommending my book.  
Sincere regards, Jeff.

P.S. I hope you appreciate that the font of this email is Perpetua.

Remarkably, it seems that, not only had Jeff kindly reviewed the paper attached here [DS §7], but that he had also read the final page of the novel [DS, p 1,165] which I had given to you in Cleveland years ago (and linked at the bottom of the last page of this paper). Although I might change a few words on this page if I were rewriting it today, I wouldn't change much and the message would certainly be the same...

A note on the typeface at a novel's conclusion is a corny tradition at best. One of the corniest examples reads: This book was set in Fairfield... In its structure Fairfield displays the sober and sane qualities of the master craftsman whose talent has long been dedicated to clarity. It is this trait that accounts for the trim grace and vigor, the spirited design and sensitive balance...

Sane qualities? Spirited design? And that was just an excerpt.

Anyway, so what about this book's typeface?

Before I explain, don't get me wrong, I'm no anarchist—I seek the comforts of tradition and take shelter in ritual. But a novel's greatest qualities are often those elements which differ and set it aside from other works, making it, well, novel.

Thus this book was set in Perpetua. When I began the search for an appropriate typeface, the most critical quality was that its creator—the typographer who designed and cut the font—be a current resident of heaven. Eric Gill was the second of thirteen children, born in Brighton, England, in 1882. He was Roman Catholic. Now we all know how tough it can be for a Catholic to get to heaven. And to make things worse, Mr Gill was an insurrectionist with a penchant for *femmes fatales*.

But he loved expression, had a great sense of humor, and worshipped natural beauty. So I figure he's up there.

And thus it is my hope that Mr Gill will notice his work from high above — Perpetua's clean, chiseled letters, especially the letters that I have grouped into words and sentences here at the very end. Eric, I have a favor to ask. Please take a look around heaven, find Angie, and tell her that I have written a story with dolphins just for her [DS, p 1,165].

And, finally, Dear arXiv-moderation, I will rest my Teflon-coated defense following one final vote-of-confidence from Kanipe, copied below. But I will note, however, that I have merely presented opening arguments, because I have not even begun to delve into the theoretical and logical content of my submission, as it seems unnecessary, given the strength of the testimony presented herewith. Indeed, I do not wish to take up more of the judge and jury's time than necessary, but I am willing to do so.

I thank you for your time and consideration on this weighty matter – please take time to carefully review my submission, as I believe you may recognize that I am fighting for no less than the very survival of the human species – which of course includes you and your colleagues.

*Subject: Darwin's Nontrivial Error*

*Date: 04 Feb 2010 4:40 PM*

Matt,

I would love to have teleported to the luncheon, but that technology has yet to be invented! I hope it went well, and many thanks for the invitation. Never been to Halifax.

On another matter, I've been asked to give a PowerPoint presentation in, of all places, *Second Life for the Meta Institute of Computational Astrophysics*. (I now have an avatar!) The subject will cover a few of the cosmic connections described in my book (I can't get to them all in under an hour). I plan on mentioning the role of cosmic influences in natural selection, so, naturally, I looked over your paper on *Darwin's Nontrivial Error*...

I'm a little unnerved giving a talk from my office, and speaking through my avatar to a lot of other avatars

from many backgrounds, largely academic, but this may be the start of a whole new venue. Hope you don't mind if I mention your paper. I could also, if you wish, post the URL link to the paper. The one I have is: <http://mpira.ub.uni-muenchen.de/20193/>. Or is there another that you would prefer?

Best! Jeff

Well, Dear arXiv-moderation, by not I trust that you may recognize that there *is* a URL I'd very much prefer: the arXiv URL to which I had been duly *endorsed* to post this relevant contribution to knowledge and nontrivial theoretical development.

Please advise.

Sincerely, Matt Funk, FLS

Although I rested my case at that juncture, as I suggested, I could have proceeded at great length – which is, essentially, what I will proceed to do as clarify my central thesis and call forth evidence and testimony.

*On the Origin of Mass Extinctions: Darwin's Nontrivial Error* (DS §5) has been widely circulated, and praised by many (e.g., Elliott 2009), including Profs. Falzon, Kanipe, Sloan, MacDonald, and Brian G. Gardiner (*cf* Scientists Celebrated 2000 ; 20<sup>th</sup> Anniversary of Ozone Hole Discovery 2005 ; Farman, Gardiner, & Shanklin 1985), whom has graciously accepted this paper for the *Proceedings of the Linnean Society*, the very same journal in which Darwin and Wallace first published the theory of evolution in 1858 (Darwin & Wallace 1858 ; *cf* Gardiner 1995). In fact, this 13-page paper offers an extraordinarily clear and concise executive summary of this entire thesis. Better yet, it was founded upon four key references to four supplementary, nontrivial theoretical developments which I advanced in four previous publications, which complete, support, clarify, contextualize, and expand this thesis.

For example, the first, as previously noted, is my exhaustive comparative study which tables the solution to the problem of sustainable economic development on islands (DS §8), second is a game-theoretical framework which informs ESS at the global level (DS §7), third is my exploration and illumination of the derivative nature of economic power (DS §11 ; *cf* Aumann 2006 ; Roosevelt 1900 ; Churchill 1948-1954 ; Desha 1922 ; Rhenanus 390), and the fourth is an enlightening discovery relating to *The Tragedy of the Commons* (DS §9).

And thus for those with the inclination to pursue this thesis beyond my study of the PEI development plan (DS §8), *On the Origin of Mass Extinctions: Darwin's Nontrivial Error* (DS §5) and the four foundational theoretical developments cited therein may offer the next logical step, because, as you may to see, DS §5 is a bit like the giant *babushka* in a set of *matryoshka* – those Russian stacking dolls – for it is a reasonably condensed discourse referencing 92 weighty works (four of which are

my own), representing 152 dense manuscript pages of original, complex, and nontrivial theoretical developments themselves.

Yes, my quest began with a search for a solution to the problem of sustainable economic development on islands, which I found (DS §8), thus I pressed on, in search of winning development strategy for the entire planet, which, remarkably, I also happened to find (DS §7), and yet my search presses on because

there is only one way to science ... : to meet a problem, to see its beauty and fall in love with it; to get married to it, and to live with it happily, till death do ye part – unless you should meet another and even more fascinating problem, or unless, indeed, you should obtain a solution. But even if you do obtain a solution, you may then discover, to your delight, the existence of a whole family of enchanting though perhaps difficult problem children for whose welfare you may work, with a purpose, to the end of your days (Popper 1956, p 8).

And thus I do indeed find myself enchanted with a new set of difficult problem children; despite the fact that I am a naturalist with wide and equally deep interests in cultural, biological, planetary, stellar, and galactic evolution, perhaps it may also be fair to say that I am actually just an economist, afterall...

The central task of an empirical science such as economics is to provide general understanding of events in the real world, and ultimately all of its theories and techniques must be instrumental to that task (1982, p 60).<sup>s</sup>

To be more specific, my curiously concentrated 3-page PhD dissertation (DS §4), future researches, and entrepreneurial efforts will endeavour to leverage, utilize, and fully exploit my unified theory of economic & evolutionary value in as many useful ways as possible; and I'll leave you with two examples, on entrepreneurial, the other academic...

*Subject: Villa Rosa*

*Date: Mon, 19 Apr 2010 12:51:02 +0200*

*From: Charles Azzopardi*

Dear Matt

Apologies for the lateness in my reply. It would be a pleasure to meet you whenever you are next here in Malta. Interesting comments in your note to Laragh.... Please let me know as required.

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<sup>s</sup> Yet, perhaps the most important lesson, which I have learned from Mises, was a lesson located outside economics itself. What Mises taught us in his writings, in his lectures, in his seminars, and in perhaps everything he said, was that economics—yes, and I mean sound economics, Austrian economics—is primordially, crucially important. Economics is not an intellectual game. Economics is deadly serious. The very future of mankind—of civilization—depends, in Mises' view, upon widespread understanding of, and respect for, the principles of economics.

This is a lesson, which is located almost entirely outside economics proper. But all Mises' work depended ultimately upon this tenet. Almost invariably, a scientist is motivated by values not strictly part of the science itself. The lust for fame, for material rewards—even the pure love of truth—these goals may possibly be fulfilled by scientific success, but are themselves not identified by science as worthwhile goals. What drove Mises, what accounted for his passionate dedication, his ability to calmly ignore the sneers of, and the isolation imposed by academic contemporaries, was his conviction that the survival of mankind depends on the development and dissemination of Austrian economics...

Austrian economics is not simply a matter of intellectual problem solving, like a challenging crossword puzzle, but literally a matter of the life or death of the human race (Kirzner 2006, p 1).

Subject: Villa Rosa

Date: Tue, 13 Apr 2010 11:49:39 -0300

Dear Charles,

It was a pleasure to meet you at the Liongate reception at Villa Rosa last week – although we did not have the opportunity to speak at length, I hope that we may have the chance to have lunch the next time I'm in town, as I'm working on a PhD dissertation under Prof. Falzon in the Department of Banking & Finance – I've copied some correspondence below which briefly introduces my thesis. As noted below, the end-game objective of my dissertation is to launch a Malta-based PIF, so perhaps we may have some business to do together somewhere down the line.

Subject: On the Problem of Liquidity

Date: Tue, 23 Mar 2010 09:37:56 +0100

From: Laragh Cassar

Dear Matt

Thank you for getting in touch with me – your proposal sounds more than interesting. It would be a pleasure to meet up with you. Are you available on the 1<sup>st</sup> of April?

Kind regards, Laragh

Subject: On the Problem of Liquidity

Sent: 23 March 2010 06:41

Greetings Laragh,

I'll be on Malta 30 March through 6 April to initiate my PhD dissertation in Banking & Finance, which I have designed to culminate in the development and launch of an unusual fund.

I reviewed your *Alleviating Issues of Liquidity* with great interest because the fund I have in mind would have no gate, no side pockets, no exit fees, no distribution levies, no illiquid shares, no prime broker, and would maintain daily liquidity and total investment and operational transparency.

I realize that it may initially appear that my proposal may sound too good to be true and/or incapable of generating sufficient returns and investor appeal, but I believe that it may be very possible to achieve exactly what I am setting out to do because, although this fund may, technically speaking, be considered a hedge fund, it will share few attributes with contemporary hedge funds (or any other such fund as conceived by A.W. Jones in 1949). This truly “hedged” fund would be far more aligned and dedicated to the etymological twist the verb “hedge” took in the 1670s: to “insure oneself against loss,” as in a bet.”

This is, naturally, a long and somewhat complicated argument, but, briefly, the hedge fund industry at large offers weak short-term insurance and even less long-term insurance against such loss, and this complication is due in large part to the fact that, as Warwick noted in *Searching for Alpha* (2000) “Before the work of Markowitz and Sharpe, evaluating the performance of an investment advisor was difficult,” but I submit now that their theories have been so widely adopted, evaluating the performance of an investment advisor has become *nearly impossible*. Or, to put it another way, although journals such as HFM Weekly invariably cite fund managers with “extensive industry experience,” show me a manager who is not intimately familiar and well-versed in Sir Karl Popper's solution to David Hume's *Problem of Induction*, and I'll show you a manager who does not have *any* valuable management experience.

In fact, I have given much consideration that marketing efforts related to the launch of this fund should endeavour to distance itself AI from the hedge fund industry – although it is essentially a true “safe-haven” fund, the mutual fund industry has already perverted, abused, and thus discredited this

term – and although “Long Term Capital Management” would also represent the spirit of this fund quite well, of course several Nobel Laureates who could not grasp Popper's solution to Hume's problem of induction [*cf* DS, pp 589-591] ruined that name forever [Lowenstein 2000]!

In any case, given the inherently conservative nature of the sound strategy I shall meticulously develop, clarify, and patiently (and simply) explain, it is no surprise that a recent advertisement for Horizon Cash Management captures the spirit of my PhD dissertation and proposed fund: “It's not about the return *on* your money... It's about the return *of* your money.”

Although it may have been impossible to market my proposed fund prior to the the economic turbulence of late (which, of course, represents a tiny, insignificant ripple in relation to many of the truly catastrophic, systemic risks with which my research is concerned), times have changed, indeed.

In fact, my marketing document my feature this type of tag-line:

*This fund is not for those looking to make money. This fund is for those whom have already made their money. This fund is not for those looking to retire on their returns on investment. This fund is for those looking to preserve and to protect their capital for their children and their children's children.*

And of course this fund will not appeal to many people – in fact it will not appeal to most. But, fortunately, in light of the well-established correlation between risk tolerance decreases as wealth increases, it is designed specifically for individual and institutional investors (and pensions in particular) whom have amassed the greatest fortunes; thus you may not be surprised that this fund would be designed and marketed as an “Extraordinary Investor” PIF.

Of course, if I'm able to develop and sell this strategy, I imagine that it would gain much favour with the MFSA, Minister of Finance, and contribute to the overall financial stability and well-being of the Maltese economy – for my proposed fund would be as bomb-proof, conservative, and prudent, as any imaginable fund – ironically, it might even produce fair returns (not by generating extraordinary returns, but rather by costing relatively little to manage and operate, and, given it's inherently ultra-low-risk nature, attracting considerable AuM and thus economy of scale – through good times and bad, alike.

In any case, I'm wondering if you may be interested in meeting for coffee while I am in Malta?

Cheers! Matt Funk

Alternatively, the purely academic outline of my present PhD endeavour goes like this...

Date: Fri, 14 May 2010 23:59:07 -0300

To: Joseph Falzon

Dear Joe,

Sorry it has taken me so long to write to say thank you for all of your hospitality, genuine interest my endeavours, and, moreover, for generously agreeing to accommodate my PhD dissertation and bring me under your wing. I am extremely excited! Although I have been busy preparing to defend my MA thesis, I've also been very busy preparing my PhD summary for you.

I promised that I'm a disciplined and focus self-starter, and to this very point, not only have I completed my summary, I have completed one-third of my dissertation (attached herewith [DS §4]).

Per our fruitful conversations, I have developed a focused plan-of-attack on the two complimentary components we had discussed: 1) Systemic risks and 2), a comparative domicile study.

If you should find the following outline prudent and agreeable, my plan is to deliver these two components in three concise, potentially high-impact papers.

The first two papers (the first of which, again, you may find attached herewith) will address the problem of systemic risks.

The reason I've split this component into two separate papers is because, I submit, systemic risks cannot be fruitfully addressed without an economic theory of value. This is, arguably, the most fundamental, open problem in economics – my solution is a distillation and synthesis of the fruits of three years of research in a three elegant, highly concentrated pages! Although I have no doubt this paper may face considerable resistance, if I am able to effectively advance this theory and bring it into the light of day, it may indeed deliver impact.

In any case, with this theory of value in hand, I will be positioned to move on to the second paper relating to systemic risks: *On The Principles of Economics & Evolution II: In Search of Evolutionarily Stable Finance, Banking & Alternative Investment Strategy*. This paper picks up where my recent Lifeboat Foundation Scientific Advisory Committee report left off, and will, naturally, be much longer. But I believe that it may prove useful to deliver it as a stand-alone paper – my hope is that it may yield practical value for your department, Faculty of Economics, and the Maltese finance community at large.

And of course I have the same hopes regarding the third component, my comparative domicile study, which preliminary research indicates, will show-case Malta as an ideal finance centre-of-choice.

Otherwise, generally speaking, several friends and colleagues have remarked that the recent volcanic activity in Iceland have helped to highlight the importance and relevance of my researches – I believe historical timing may indeed be on my side.

There's certainly no rush, Joe, but I'd love to hear your thoughts whenever you have some time to spare.

It was great to meet you and your wife, Fr Peter, and the Dean – please send all my best regards; my wife and I thoroughly enjoyed our precious time in Malta, and we are looking forward visiting again, soon.

Very best wishes, Matt

And briefly, before signing off, I'll also sketch the manner in which I'm presently endeavouring to utilize my theory of value in the real world, that is, with the following entrepreneurial enterprise:

*Subject: Ottawa Fish & Game Club*

*Date: Tue, 04 May 2010 14:48:42 -0300*

Dad,

Really enjoyed our conversation last night and I've been thinking carefully about several of your insightful comments; and as I continued to think it through, I was reminded of a private club you brought to my attention long ago: The Huron Mountain Club [*cf* Flaspohler & Meine 2006, Anderson & Leal 1997].

The Huron Mountain Club's strategy [DS §20] is essentially identical to The Mustique Co. Development Plan.

In fact, if you have time to turn a few pages, it may prove illustrative to think of it as “The Ottawa Fish & Game Club Development Plan.” All the principles remain the same, and, better yet, – Gogebic County yields a bountiful harvest of natural biogeographical insularity).<sup>§</sup> This strategy was also implemented on Sea Island [Martin 1978].

Thus, it may prove helpful to think of our lodge, the mile of shoreline, marina, and all 180 acres as a very special, unique, and well insulated island, surrounded by protective seas (one flank bordered the largest inland lake on the upper peninsula, another flank bordered by 1.2 million acres of Ottawa National Forest), the analogy is nearly perfect – and the strategy certainly fits. If you'd like to read The Mustique Co. Development Plan, I'll send it along, but in the meantime, Mick Jagger (long-time Mustique resident) captured the essence as follows:

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§ Gogebic County is a rural community of 1,112 square miles or 712,032 acres located in the Upper Peninsula of Michigan. It is the westernmost county in Michigan, bounded on the west and south by the state of Wisconsin and on the northwest by Lake Superior. Eighty percent of the County is forested. The forests are largely comprised of aspen, birch, maple, and softwoods. The Ottawa National Forest occupies 311,493 acres in the County or 43.7% of the land area. Of the remaining forest, 47.5% is private and the remaining 8.8% is under state and county control. Mining and timber production have traditionally been the main industrial sectors but they have been in decline, since the mid-1960's. Roughly 30 miles of Lake Superior shoreline is a prime recreational attraction. The combination of climate, forests, and terrain produces ideal natural conditions for nature...

Gogebic County's population is currently 17,370 people (CS1 2010, p 1).

There are many small islands throughout the world that people have attempted to develop, but not always with the interests of the environment in mind. Since its inception in 1968, the Mustique Company has recognized both the aesthetic and economic value of a healthy environment and has tried to protect the island from ad hoc and adverse development. This was accomplished by partitioning the island into a limited number of plots, having the island and surrounding waters to one kilometer offshore declared a Conservation Area, and commissioning studies and reports to monitor environmental issues and concerns as they arose. The result of this is an island that is still mostly covered with green space – nearly 70 percent – with a diverse collection of plant communities, habitats, and the creatures that depend upon these. The dominant categories of vegetation on Mustique remain unchanged, these being the sheltered forests and the windswept forests alike.

The Company recognizes that all parts of a small island's ecosystem are interrelated and therefore all are important to maintain a healthy environment. The sea salt ponds are not only important for bird life, they also provide a sink for the soil that runs down the hillside during heavy rains. This in turn helps prevent runoff of silt from entering the sea and covering our sea grass beds and coral reefs. The coral reefs not only provide food and shelter for fish and other creatures, they also protect our white sandy beaches from storm waves. The Development Plan created for Mustique is a testament to the Company's desire to maintain its valuable natural resources while allowing limited development in carefully selected areas.

The goal of environmental management on Mustique is to preserve and use all facets of the environment in such a manner that they will remain in perpetuity for future generations.

Thanks to Ben, I was able to spend much of the past three years studying and analyzing this plan, interviewing and consulting with the eminent, Honourable Brian Alexander, who carefully guided development on Mustique – utilizing the principle of *gradualism* at every step of the way – for the past 30 years, and moreover, considering the great and time-tested lessons it has to offer and how they might be put to work elsewhere – on other islands, ranches, and within other special, island-like natural settings, such as our property in Michigan.

If fact, I'm quite certain this plan carefully and meticulously outlines and informs the very best possible way to build upon, preserve, and enhance the extraordinary value you have so painstakingly and lovingly crafted over the past three decades. I'm equally certain that this is exactly what I want to do.

If you have time, take a look at my analysis of this plan [DS §8], wherein I detail the application of *The Principle of Relative Insularity*. And of course it would also be great for you to head down to Mustique to see for yourself!  
Love, Matt

For more details on this ambitions endeavour you may refer to APPENDIX III.

Finally, most generally speaking, I trust you've gathered that I hold one of J. Robert Oppenheimer's (1955) call-to-arms very close to my heart: *The responsibility to communicate the truths that I have found*. And, to this salient point, perhaps you may recognize that I'm carefully, patiently, and meticulously endeavouring to communicate the truths that I have found to you, my fellow students, the faculty, and greater world at large, and, thus I would love the opportunity to share, present, and defend this thesis, which begins in earnest on the following page (§VII). Many here on Prince Edward Island (including you, of course) have helped me along the way, and I would love the opportunity to share my discoveries and express my gratitude.

Thanks again for your words of encouragement and support, Richard.

Please advise at your earliest convenience.



Sincerely,

Matt

PS: The point is, ladies and gentleman, that greed, for lack of a better word, is good. Greed is right, greed works. Greed clarifies, cuts through, and captures the essence of the evolutionary spirit. Greed, in all of its forms; greed for life, for money, for love, knowledge has marked the upward surge of mankind. And greed, you mark my words, will not only save [Prince Edward Island], but that other malfunctioning corporation called the USA.<sup>§</sup>

—*Wall Street*, an original screenplay by Stanley Weiser & Oliver Stone, 1987

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§ The past is secure. It is unalterable. The seal of eternity is upon it. The wisdom, which it has displayed, and the blessings, which it has bestowed, cannot be obscured; neither can they be debased by human folly, or by human infirmity. The future, is that, which may well awaken the most earnest solicitude, both for the virtue and the permanence of our Republic. The fate of other republics, their rise, their progress, their decline, and their fall, are written but too legibly on the pages of history, if indeed, they were not continually before us in the startling fragments of their ruins.

Those republics have perished; and have perished by their own hands. Prosperity has enervated them; corruption has debased them; and a venal populace has consummated their destruction... They have disregarded the warning voice of their best statesmen; and have persecuted and driven from office their truest friends. They have listened to the councils of fawning sycophants, or base calumniators of the wise and the good... They have surrendered to faction, what belongs to the common interests and common rights of the country. Patronage and party, the triumph of an artful popular leader, and the discontents of a day, have outweighed, in their view, all solid principles and institutions of government. Such are the melancholy lessons of the past history of republics down to our own....

In theory, a government may promise the most perfect harmony of operations in all its various combinations. In practice, the whole machinery may be perpetually retarded, or thrown out of order by accidental maladjustments... Every change discomposes for a while the whole arrangements of the system. What is safe, is not always expedient; what is new, is often pregnant with unforeseen evils, or attracts only by imaginary good (Story 1840, p 325).

## §VII – ON THE PRINCIPLES OF ECONOMICS & EVOLUTION

### **A Survival Guide for the Inhabitants of Small Islands, Including the Inhabitants of the Small Island of Earth**

It is all too clear at this moment that there are many ways for a [thesis] to begin; and most of those in plain sight are transparently bad. We are tantalized by the thought that somewhere among them *may* lie hidden a few having such noble qualities as these: The reader [is] informed – perhaps without suspecting it, though in the clearest prose – of what the writer intends to discuss; yet at the same time, it sounds like the Lorelei calling...

If we could devise an opening strategy such as that, it would wonderfully exemplify the theme and aims of the [thesis], for our concern throughout will be with a method for selecting best strategies, even in contexts where the word 'strategy' itself may not be in common use.

The contexts of interest to us are those in which people are at cross-purposes: in short, conflict situations. The problem of how to begin this [thesis] is recognizably of that type, for certainly you and [I] are at cross-purposes, as our interests are opposed – in a polite way, of course, but definitely opposed. For [I] hope to cozen you into a very difficult type of intellectual activity, while you, a reasonable person with enough trouble already, may crave only relaxation or satisfaction of curiosity.

– John Williams, *The Compleat Strategyst: Being a Primer on the Theory of Games of Strategy*, 1954

H. Wade MacLauchlan, President  
University of Prince Edward Island  
550 University Avenue  
Charlottetown, PE C1A 4P3  
CANADA

29 January 2010

Dear Wade,

It was a great privilege and honour to spend three extraordinary years at The University of Prince Edward Island, and I would like to express my sincere thanks and highest praise to Profs Bartmann,<sup>§</sup> Kurial, MacDonald, Moore, Mayne, the faculty, and student body. I am also especially indebted to my wife, Marcy, Natalie deJong, the Honourable Brian Alexander, the Hounorable Stephen Harper, Mark de Silva, my parents, the Fowlers, Ryans, Campbells, and classmates Laura Lee

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§ *Subject: Your Progress*

*Date: Wed, 20 Jan 2010 13:49:31 -0400*

*From: Barry Bartmann*

It is really encouraging to read your correspondence concerning your PhD. The response to your inquires from such distinguished scholars is truly a testament to your own scholarship. Keep me informed. I want to thank you so much for the lovely lunch and the very generous gift. What a good read it is turning out to be. It was exceedingly kind of you. I look forward to returning the gesture perhaps at Chocolate Elements once they are able to serve Stella!

All the best, BB

Howard, Erin Kielly,<sup>§</sup> Jordan Walker,<sup>£</sup> Simone Webster-Stahel,<sup>†</sup> Colin MacIntyre, and Hans Connor.<sup>‡</sup>

My progress would not have been remotely possible without recent guidance and kind words of encouragement from Drs Bartmann, Kurial, MacDonald, Falzon, Funk (Ben), Funk (Chris), Carlquist, Gardiner, Sloan, Kanipe, Roberts, Randall Hobbs, Zarina Funk, Jason Funk, Daniel S. Loeb, Dannyel Kafer, and my sweet son, William.<sup>Ω</sup>

And thus it is my honour to present this thesis to you, the faculty, my classmates, family, and friends; I also offer this letter to you as a token of thanks for an interest-free loan on a 1958 Chevy Biscayne (of which, more to follow).

*On the Origin of Mass Extinctions: Darwin's Nontrivial Error* (DS §5), a synthesis of my researches, may serve as the most direct points of departure on this long journey over perilous seas of theoretical thought; four key discoveries (DS §7-§9, §11) offer additional support and an excellent overview. A 3-page abstract is also readily available: DS §4. But these challenging discourses may not offer the most accessible points-of-entry, due in part to the unfashionable methods I have employed, the challenging nature of the problems at hand (*i.e.*, Popper 1959), and, perhaps, *The Problem of Ivory Towers* (DS, p 138).

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§ *Subject: On the Origin of Mass Extinctions: Darwin's Nontrivial Error* [DS §5]  
*Date: Thu, 3 Dec 2009 12:58:26 +0000*

Thanks for coming to the dinner last night; it was great to see such a wonderful turnout. Hopefully we can all get together soon.

I think you are doing great work and there is no other MAIS student who has put as much dedication, passion and commitment into their work. You are really contributing to something so much bigger!

Happy Holidays, Erin

£ *Subject: On the Problem of Economic Power: Lessons from the Natural History of the Hawaiian Archipelago* [DS §11]  
*Date: Wed, 16 Dec 2009 22:02:20 -0400*

Great paper!!!

The pictures lend it an *apropos* personalized touch.

The first paragraph on page 14 had me literally jumping for joy!!!

You nailed it my friend, nailed it!!!

I am really enjoying both the tone and crux of your papers. By and large we see the world through the same prism....

Bravo! JBW

† *Sent on Thu, 6 Nov 2008 09:39:49 -0300:*

I read your paper today, I spent a long time on it, almost all day. I am glad I did, it's very insightful and interesting. I admire the intelligence with which you construct your argument and the unbelievable amount of reading you have done. I don't think one can argue with you... I attached my comments. I am happy to discuss further with you...

The thing you must be aware of is that this paper can't be read quickly if one wants to understand it. If one tries to read it quickly, I don't think one can understand it because the arguments are carefully constructed and need careful following.

‡ *Sent on Mon, 8 Sep 2008 09:39:49 -0300:*

Hi, I don't think we've ever formally met... I saw your email address in the mailing list of Godfrey's most recent mail-out and am using that to contact you. I am still working on my thesis... and am engaged in PEI economic development research... I happened upon a paper [DS §14] you submitted to the 2008 Åland Islands Conference and was quite intrigued with your thoughts about the value of relative insularity and approaches to economic and/or sustainable development pursued by islands. Powerful stuff! In that paper, you mention that there are two more parts of this 'trilogy' of work and that you could send copies to conference-goers. I wonder if you could email me those two other parts of the work to me?... I would look forward to discussing your research some time.... I look forward to hearing from you and I wish you success.

Ω *Subject: Your Progress*  
*Date: Wed, 20 Jan 2010 13:55:01 -0600*  
*From: Dannyel Kafer*

Good for you.... Will and I are proud of you. Talk soon.

Thus I will offer guidance, contextualize this thesis, and, perhaps most importantly, suggest preliminary and supplementary readings beyond the seven recommendations noted in §VI. But first I should offer a personal introduction.

I believe you may recall who I am.

We met briefly following your *Global Issues* address last September—you may recall that I was seated in the front row with one of my students (I was a *Global Issues* mentor), and you came over to introduce yourself after your talk—apparently you were curious to know who I was, since I seemed to know a bit about explorers and islands (I had answered your questions about Cook, Vancouver, remarking that they had been in Hawaii together). In any case, thank you for introducing yourself to me, for I have been meaning to share a story with you for more than a year.

This story relates to a long letter (DS §8), in which, near the end, I offered a few words about some of my heroes, including, coincidentally, Cook and Vancouver. I also mentioned someone whom I believe is one of your heroes, too.

On 12 February 2009 – in honour of the bicentennial of Charles Darwin and Abraham Lincoln’s birthday, I enclosed a crucial, prerequisite game-theoretical solution (DS §7) within a long letter (DS §8) to the Fellows of The Linnean Society of London. Near the end of this long letter, in a chapter entitled, ‘A Few Noteworthy, Independent Islanders’, I remarked that, “many of my heroes—the fiercely independent explorers who have influenced me the most—invariably possessed one or two additional qualities, and often both: (i) they were born or lived in the British Isles, or (ii) they loved and explored (several still loving and still exploring) the islands of the world.” One of the islanders I noted happened to be your father.

I believe you may be fascinated by several aspects of this remarkable letter; you may be especially intrigued by the fact that it offers a solution to the problem of sustainable economic development on islands (and other relatively insular states) through an exhaustive comparative study of the *The Development Plan for Prince Edward Island* (Canada 1970) and *The Mustique Co. Development Plan* (DS §8).

The month after I mailed off this long letter I received a reply which informed me that, during a meeting of the Fellows at Burlington House on March 19<sup>th</sup>, 2009, I was recommended and elected to Fellowship to the world’s oldest biological society (*cf.* DS §8), the same learned society in which Charles Darwin and Alfred Russel Wallace – both lifetime Linnean Fellows themselves – had announced their joint-discovery of the theory of evolution on 1 July 1858.

Although I did not have the opportunity to meet your father, I heard a story on Christmas eve of 2008 which made me think of him as I sat by the fire, writing my letter on that cold February day.

In the summer of 1968, Ronald Campbell began dating Bernadette MacDonald, a young lady who, as you may know, was living on her family farm a few miles down the road from the Campbell homestead. After walking back and forth to the MacDonald's farm for a few months, Ronnie thought he could use a car. The problem was, however, that he didn't have any money—but he was given some valuable advice—to go talk to your father.

Ronnie walked into your father's office and asked for help: He said that he had found a good deal on a ten-year old used car—\$600 for a 1958 Chevy Biscayne. Without another word, your father turned around, opened his safe, took out \$600, handed it to Ronnie, then asked him how and when he might expect to be paid back. Ronnie said that he could bring \$25 every two weeks. They shook hands, Ronnie bought his first car, and every two weeks he came to your father's door with \$25.

One year and two weeks later, your father was talking on the telephone when Ronnie walked through the door with a big smile, handed your mother \$25, and said, "Here you go, this is my last payment."

Your mother said, "Well, yes, thank you Ronnie, that's right, but what about interest?"

Your father, who had overheard the conversation, held the phone away from his mouth and called out, "There'll be no interest for that young fella!"—then returned to his phone call.

Of course it is not possible to know how much one material variable may factor in the complex, uncertain, an difficult game of life on Earth. Could a 1958 Chevy Biscayne make the difference between marriage and courtship failure? Although we're unable to learn answers to such questions, it does at least seem possible, that, had history unfolded otherwise, I may not have met the Campbell's beautiful daughter (my wife) if it were it not for your father's generosity – yes, it seems he was the kind of islander Captain Slocum (who hailed from Briar's Island, by the way) admired most.<sup>§</sup>

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§ It was the season for fruit when I arrived at the Azores, and there was soon more of all kinds of it put on board than I know what to do with. Islanders are always the kindest people in the world, and I met none anywhere kinder than the good hearts of this place. The people of the Azores are not a very rich community. The burden of taxes is heavy, with scant privileges in return, the air they breathe being about the only thing that is not taxed....

The day after my arrival at Horta was the feast of a great saint.... The deck of the Spray was crowded from morning till night.... On the [next] day a kind-hearted native harnessed a team and drove me a day over the... roads about Fayal, 'because,' said he, in broken English, 'when I was in America and couldn't speak a word of English, I found it hard till I met someone who seemed to have time to listen to my story, and I promised... that if ever a stranger came to my country, I would try to make him happy' (Slocum 1900, pp 55-56).

Thus please accept this curiously personal thesis as a tribute to your father's generosity.

And, in an effort to keep this spirit alive, I offer another parting gift to you, the students, faculty, and fellow islanders around the world: A brief, concise, counter-intuitive, tenable solution to the *Problem of Sustainable Economic Development* on islands (*cf* DS §8), the problem (DS §16, DS §22) , in essence, which drew me to the Master's of Island Studies Programme, the problem which I had hoped to solve when I began my coursework in 2007:

12/3/2009 12:20 AM, Matt Funk wrote:

Greetings from Prince Edward Island, Mark!

Exciting to hear that you're headed our way in March – although I completed my MAIS coursework last year, I hope to sit in on a few of your seminars.

I'm an AMC member and my wife and I spend time in NH and ME. In fact, *Katahdin: An Historic Journey – Legends, Explorations, and Preservation of Maine's Highest Peak* [Neff 2006] sits on my desk, ready to deliver to a colleague who is struggling to grasp why land-use policy has failed (and continues to fail) on PEI, and why it works fairly well in ME and NH.

I'd like to review a few of your works, if you're able to email any of these papers, please do: [Lapping 2005a, 2005b, 2005c, 2006, 2007 ; Daniels, Keller & Lapping 2007 ; Daniels & Lapping 2005].

Also, I realize you must be quite busy, but if you should feel so inclined, I'd love to hear any thoughts *On the Truly Noncooperative Game of Island Life: Introducing a Unified Theory of Value & Evolutionary Stable 'Island' Economic Development Strategy* [DS §8]. I realize this “letter” is massive, but I would not send it if I were not fairly sure you may want to read it. Also, it's not nearly as long as it looks, as it contains many optional appendices and footnotes. I introduced this letter yesterday, in the email I have copied, below; it offers a current and exhaustive study of PEI's land-use record and development strategy.

I would also like to hear your take on the logical implication and practical solutions which follow from that long letter (DS §8), described in brief with the anecdote about New Hampshire, below.

And all this from a complete stranger!

But not for long, I look forward to meeting you in March.

*Subject: Competition 37A09*

*Date: Wed, 02 Dec 2009 01:04:05 -0400*

Greetings again, Sharon,

Just following up with you regarding my application for this position with the theoretical development attached herewith [DS §8].

Perhaps the most intriguing and relevant aspect of this long letter may be the fact that it offers an exhaustive comparative study of the *Development Plan for Prince Edward Island: A 15 Year Federal-Provincial Program for Social and Economic Advancement* [Canada 1970], and *The Mustique Co. Development* plan of that same year. This treatise is rather revolutionary.

And, to this point, if you discover a single piece of research which casts a more favourable reflection upon the face of a candidate for your Director of Environmental Studies, I would appreciate the opportunity to review it.

I will close by demonstrating my abilities in brief, by offering a tenable solution to Prince Edward Island's nontrivial environmental [DS §8, §16] and economic [DS §22] problems: Interestingly enough, this solution does not have anything to do with the environment, but rather with the provincial legislature and the Canadian constitution [*cf* Russell 1993].

Consider, for example, this warm islander welcome I recently offered a new MAIS student...

Subject: *Island Studies*

Date: Sat, 03 Oct 2009 11:51:55 -0300

Hi Marian, Welcome to Island Studies!

I read a few paragraphs in Pete Hay's island studies seminar last night, as an attempt to make a comparative point with the 'island' of New Hampshire, and I realized it might interest you:

On January 5, 1776, the Fifth Provincial Assembly of the state of New Hampshire ratified the first-in-the-nation state constitution, under which the state was governed until the current constitution was adopted in 1784. From its beginnings, the new Hampshire government consisted of a twelve-member Senate and a House of Representatives, the size determined by the population, with each member representing one hundred citizens.

In 1877, the Senate doubled in size to twenty-four members as the House continued to grow until 1943, when a constitutional amendment limited its size to four hundred. As such, the New Hampshire House of Representatives remains the largest state legislative body in the United States, and the third largest legislative body in the English-speaking world. Only the U.S. House of Representatives and the British Parliament are larger.

The remuneration for House members has remained unchanged at \$200 per two-year term since 1889, ensuring that the Granite State continues to be governed by what is, by all intents and purposes, a volunteer citizen-based legislature. As Richard Leavitt states in his book *Yesterday's New Hampshire*, 'One advantage of its unwieldy size is that it makes corruption non-existent – unless you call it corruption to swap a vote for a ride home' (Whitney 2008, p 41).

Briefly, through my comparative researches into the natural histories, economies, and ecologies of PEI, Mustique, Hawaii, Iceland, Aland [DS §14], Montana, Mt. Desert Island, Roque, Sea Island, Little St. Simons, and I have discovered and distilled many illusive, nontrivial truths; and, arguably the three most important environmental variables are (i) what is the ratio of MLA's to citizens, (ii) what is the nature of MLA remuneration, and, (iii) at the national level, does the constitution offer "10<sup>th</sup> Amendment" protection?

Without getting bogged down into the details, unlike New Hampshire, (i) PEI's MLA:citizen ratio is extremely low, unlike New Hampshire, (ii) PEI's MLA remuneration is quite high, and, unlike New Hampshire, (iii) the Canadian constitution does not offer an equivalent to 10<sup>th</sup> Amendment – in fact, the Canadian constitution was founded upon the opposite, an error Mr Chandler attempted to bring to your fellow countrymen's attention on 24 October 1864.<sup>5</sup>

And, by the way, Mustique's MLA:citizen ratio may be the best on Earth: In effect, each resident effectively serves as a volunteer MLA, and thus the ratio is 1:1!

That, in short, is the fundamental solution to *The Tragedy of the Commons* [Hardin 1968 ; DS §9], not only here on PEI, but everywhere on Earth and beyond. Until these inherently fatal flaws are fixed, future efforts toward environmental improvement may prove as futile as they have in the past. You may want to consider posing this difficult question to other candidates – I would be curious to hear what, if any, tenable solutions they might offer.

And if you are able to find a more qualified candidate than I, then, as Sir Karl Popper concluded his lecture at the London School on Economics on 9 June 1989:

Let me end with a quotation from Albrecht Durer, an artist and a scientist:

But I shall let the little I have learnt go forth into the day in order that someone better than I may guess the truth, and in his work may prove and rebuke my error. At this I shall rejoice that I was yet the means whereby this truth has come to light (Popper 1999, p 73).

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§ I object to the proposed system. You are adopting a Legislative Union instead of a Federal. The Local Legislatures should not have their powers specified, but should have all the powers not reserved to the Federal Government, and only the powers given to the Federal Government should be specified. You are now proceeding to destroy the constitutions of the Local Governments, and to give them less powers than they have had allowed them from England, and it will make them merely... municipal corporations (Browne 2009, p 122).

For example, Wade, consider the “light” shed by UPEI's current Director of Environmental studies a few days ago:

*UPEI Professor Sheds Light on Island Watershed Groups*

Increased long-term funding and heightened environmental regulations are two of the most important barriers facing watershed group across the province, says one Island scientist.

Darren Bardati, director of environmental sciences at UPEI, spoke on the subject of watersheds at the Cornwall Civic Centre, Thursday while presenting the findings from a research project he completed in 2009 studying 30 watershed groups across P.E.I.

“It’s time for government to take watershed groups more seriously,” Bardati said, adding watershed groups are a way of preserving important parts of P.E.I.’s natural environment for future generations.

He added there are now ongoing discussions with the provincial government on implementing a watershed strategy (Rochford 2010).

If it's not totally clear by now, Bardati hasn't identified *any* of the important barriers, much less “two of the most important” ones, which is exactly why I published this post this beneath the online version of this article:

*Matt Funk from Charlottetown, P.E.I. writes:*

I'm afraid there are several far more significant barriers to overcome than either of the above. For a detailed, reality-based exploration of PEI land-use policy, environmental regulations, and the Prince Edward Island Development plan of 1968, see: *On the Truly Noncooperative Game of Island Life: Introducing a Unified Theory of Value & Evolutionarily Stable Island Economic Development Strategy* – <http://mpira.ub.uni-muenchen.de/19049/>

*Posted 24/05/2010 at 6:35 AM*

And if this isn't clear by now, I implore you to abandon this discourse at once to review the theoretical development linked above – because grasping this crucial, powerful truth is absolutely paramount insofar as the survival of your children and childrens' children are concerned. Indeed, it is so painfully clear that almost nobody (perhaps nobody at all) I've encountered at UPEI grasps this difficult truth, that I feel compelled to beat this dead horse with three mighty blows.

1). Let's consider this conjecture in detail: Is it “time for government to take watershed groups more seriously”?

Of course it's not – as noted above, the “government” (provincial legislature) is hamstrung, defective by design, and thus utterly incapable of taking watershed groups more seriously. That is perhaps the single-most significant barrier.

2). Moreover, this is further complicated by what is perhaps the second-most significant barrier: As noted, the Canadian Constitution is equally defective and defunct:

Perhaps the most haunting lines in Canada’s history were written in 1858: ‘It will be observed that the basis of Confederation now proposed differs from that of the United States in several important particulars. It does not profess to be derived from the people but would be the constitution provided by the imperial parliament...’ These words are from a letter signed by three Fathers of Confederation (Russell 1993, p 3).

Why, you may ask?



Well, it does not take much of a thought process to uncover this hoax, after all the Canadian Constitution is a loosely connected collection of published and unpublished doctrines, which was, in turn, based upon a loosely connected collection of published and unpublished doctrines, which were, in turn once again, founded upon collective insanity.

Needless to say, Bardati “forgot” two mind-bending barriers – but I have anecdotal evidence which suggests it would prove little use to bring this error to Bardati's attention because nonrealists exhibit great distastes for realism and seem perfectly content to proceed as if they merely had a bad dream.

3). And it gets better, because there's yet-another, far more significant barrier which Bardati failed to recognize: In essence, he was barking up the wrong tree. Have you taken the time to review the paper linked above? If so, ask yourself how effective the “ongoing discussions with the provincial government on implementing a watershed strategy” will turn out to be?

You see, even if values were aligned between the legislature and the good people of Prince Edward Island, and even if the Canadian constitution were radically amended, it is unlikely the people – and thus the provincial government – would do anything about the nontrivial land-use issues and conservation problems on Prince Edward Island, because, historically speaking, these solutions invariably come from the *private* sector, not the government. If you want to solve this problem, DS §8 suggests you need to talk to people like Danny Murphy, Tim Banks, and you – not the provincial government.

What do The Mustique Co., Parker Ranch, The Huron Mountain Club, and the Cascapedia River, all have in common? Yes, they were (and remain) *private* initiatives and enterprises, funded by individuals with *excess resource holding power* (\$).

This point is very, very, very important. In fact, it's so important that I have been holding onto a newspaper dated 8 September 2008 for this very opportunity to write these lines – which, given the fact that my wife and I have moved three times since then, is a significant feat in itself. The headline article from the cover-page of this issue of the *Telegraph-Journal* reads “Economy New Brunswick's biggest worry”. I've been holding onto this article because it became increasingly clear that, for some odd reason, the Bardati's of the world find this lesson utterly impossible to learn (and you can bet your bottom dollar that the committee that hired Bardati (which now includes Bardati himself) will not hire me, they'll find someone just as blissfully unaware – because deep down inside they don't want – *and can't handle* – the truth:

In a half-rural, have-not province, voters' main worries usually centre around the economic well-being of their families, said political science professor Tom Bateman of St. Thomas University in Fredericton.

“The more rural the province, I think the less salient the environmental pitch will be,” he said (McGilligan 2008).

Indeed, only one other individual posted a comment below this article – the truth is, islanders don't give a damn.

But in any case, Wade, this thesis – this synthetic distillation – serves as a fitting book-ending and capstone to my researches into the human *Struggle for Life* (DS §5) on small islands (DS §8, §14, §16) and the small island of Earth (DS §7), alike, and, to this point, we've got bigger fish to fry here. Alas, however, there may be no easy approach to the summit.<sup>£</sup>

Although I am satisfied that I have clearly, exhaustively, and logically synthesized this thesis and elevated it to the highest possible ground, it may prove most fruitful to approach this precarious climb by starting out with a review my researches which hit closest to home, such as my exhaustive bio-geo-politico-economic study of Prince Edward Island Development plan of 1969 (DS §8). In fact, it may prove most satisfying to stick to the exploration of this exhaustive treatise.

But then again, I do not want to discourage you or others from a more extensive expedition through my theoretical realm, for I have travelled far, have faithfully chronicled my explorations of the *Struggle for Life* (Darwin 1859) on islands and continents, alike, and have much to share: To echo the *dénouement* which steers *Bladerunner's* narrative back to earth, “I've seen things you people wouldn't believe” (Scott 1982 ; cf Lane 2007).

In short, I could simply summarize my arguments by echoing Steven Hawking<sup>§</sup> or Nick Bostrom:

For standard utilitarians, priority number one, two, three and four should consequently be to reduce existential risk. The utilitarian imperative 'Maximize expected aggregate utility!' can be simplified to the maxim 'Minimize existential risk!' (2003).

But the significance and relevance of these nontrivial observations – and, most importantly, the often counter-intuitive strategies they inherently suggest – may require prerequisite meditations upon one or two, contextual, straightforward narratives – the first, is a brief chapter of historical nonfiction which would merely require a few minutes to review (APPENDIX II), the second is a very long work of philosophical fiction, and I realize this would require a considerable

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£ How teach again... what has been taught correctly and incorrectly learned a thousand thousand times, throughout the milleniums of mankind's prudent folly? That is the hero's ultimate difficult task. How render back into light-world language the speech-defying pronouncements of the dark?...

....The easy thing is to commit the whole community to the devil and retire again into the heavenly rock-dwelling, close the door, and make it fast. But... the work... cannot be avoided (Campbell 1949, p 218).

§ If we are the only intelligent beings in the galaxy we should make sure we survive and continue. But we are entering an increasingly dangerous period of our history. Our population and our use of the finite resources of planet earth are growing exponentially along with our technical ability to change the environment for good or ill... It will be difficult enough to avoid disaster in the next hundred years, let alone the next thousand or million. Our only chance of long-term survival is not to remain inward looking on planet Earth but to spread out into space.... If we want to continue beyond the next hundred years, our future is in space (2008, closing remarks).

investment of time, yet I recommend this illustrative narrative because, much to my surprise, I have discovered that one elementary axiom (*cf* DS §7: Axiom I) may be especially difficult to grasp; and this truth is crucial because

man's mind is his basic tool of survival. Life is given to him, survival is not. His body is given to him, its sustenance is not. His mind is given to him, its content is not. To remain alive, he must act, and before he can act he must know the nature and purpose of his action. He cannot obtain his food without a knowledge of food and of the way to obtain it. He cannot dig a ditch-or build a cyclotron—without a knowledge of his aim and of the means to achieve it. To remain alive, he must think (Rand 1957, p 1012).

This *magnum opus* also happens to set the stage for a special island tale which may help peel back another layer of this large onion as I continue to contextualize and frame my researches and fully develop this thesis.

In mid-February of 2009 my wife, Marcy, and I took a trip to the big island of Hawaii, where I happened to explore, discover, and distill the very essence of the illusive, derivative nature of economic power (DS §11 ; *cf* Aumann 2006 ; Roosevelt 1900 ; Churchill 1948-1954 ; Desha 1922 ; Renatus 390). I was also engaged in a general survey of the big island's relative insularity (*cf* DS §8); you may find a photographic preview of this expedition at <http://www.funkisland.org>

But one of the most remarkable things we encountered on the big island was what we didn't see: *tourist*.

The island was under economic siege, *caught unawares*, as usual (DS §5 §7, §8, §12 ; *cf* Einstein 1954), for this is the difficult lesson *The Problem of Induction* (*cf* DS, p 589-591) invariably teaches those who take solace in the illusion of certainty (DS §5, §7). It was truly amazing: giant shopping malls with nothing but shops and shopkeepers, empty hotel lobbies, *etc*. Indeed, hotel losses and employee lay-offs headlined the news throughout our stay. And one fine day under the hot Kohala sun, as we sat down at the beach-side cafe at the *Mauna Kea* hotel, I noticed a gentleman in his mid-to-late 50s, reading a big book, seated at the only other occupied table (next to ours) on the lanai.

We ordered, I sipped my iced-tea, then turned to him and asked, “Who is John Galt?”

He laughed with a warm smile and showed me where he was in his book – somewhere around page 1000, near the end, and said, “This is the most amazing book, I can't believe I have never read it.”

He was reading a 35<sup>th</sup> anniversary edition of Ayn Rand's *Atlas Shrugged* (1957).

We talked a bit about how eerie it was being a few of the only tourists around, and he remarked how fitting it

was to be reading *Atlas Shrugged* at this moment in history. He also remarked that the book had been experiencing a great resurgence in popularity, which I certainly was not surprised to discover was true (Ganley 2009); and as I thought about it, I began to consider how this novel effectively freights an elementary, utterly essential truth (*cf* DS §7: Axiom I) which apparently may require a long, formal introduction. Again, I recommend this book because “a being of volitional consciousness has no automatic course of behavior. He needs a code of values to guide his actions” (Rand 1957, p 1012). And, to this point – *a code of values* – a comprehensive, unified economic & evolutionary theory of value based upon relative insularity, is exactly what I have painstakingly endeavoured to develop.

Have I succeeded? Will I succeed? Of course only time will tell. As Stigler noted:

In every period of the active pursuit of a science, new ideas are continually being proposed. Any new idea – a new conceptualization of an existing problem, a new methodology, or the investigation of a new area – cannot be fully mastered, developed into the stage of a tentatively acceptable hypothesis, and possibly exposed to some empirical tests, without a large expenditure of time, intelligence, and research resources. That is fact 1. Fact 2 is that the overwhelming majority of these new ideas will prove to be sterile – in fact, quite possibly all the new ideas of a period of years will prove to be sterile. Only afterward, with the fullness of knowledge that history sometimes provides, can we identify the truly fertile ideas of a period.

Some men have superb instincts as to which of the new ideas of the time will repay intensive exploration, but no one is infallible. Even the greatest of economists pursue some problems that take them nowhere. In the last months of his life, Ricardo was still attempting to fashion a precise measure of value, and not advancing one inch....

Not only great economists, but all economists who pursue anything, pursue will-o'-the-wisps for periods of time that are painful to consider in retrospect (1982, p 63).

Also, as noted in the foreword, the active pursuit of science is also about waging theoretical wars and forming alliances. Consider, for example, recent correspondence which I've selected for this special second edition update, which enables me to re-visit Sir Karl Popper, A.W. Tucker, John Forbes Nash, Albert Einstein, and Willard S. Boyle's fundamental belief regarding scientific method, all within the context of the Scottish Enlightenment...

*Subject: Mistakes Were Made (and at least two by me)*

*Date: Fri, 28 May 2010 17:07:21 -0300*

*To: Tim Besley*

Dear Tim,

Thank you for your reply – and thanks for begin such a good sport.

I was wrong about you – and it seems the spirits of FA von Hayek & Sir Karl Popper are alive and well at LSE – which is great to hear because, several years ago, when I asked Clive Granger if Popper's teaching were still popular in New Zealand and/or if his presence was still felt, he replied “there's no sign of him here”.

If you're curious, the basis for my position regarding Prof Stiglitz (and my concern his influence is too rarely challenged), is outlined in the three pages attached herewith [DS §4].

Also, my conjecture regarding the European Union is founded upon the theoretical development in reference #33 of the attached (although it seems a remedy may be possible through “deepening” the union, *i.e.*, political unification – I believe devolution may be the most tenable path) [cf Taylor 2010].

In any case, thanks again for your reply.

I hope your 25<sup>th</sup> Congress is a great success.

Best wishes, Matt Funk

*Subject: Mistakes Were Made (but not by me)*

*Date: Fri, 28 May 2010 18:11:44 +0100*

Dear Matt,

Thanks for the your candid e-mail. You are the only person I have yet encountered who seems to have a problem with having Joe presenting this major EEA lecture. Indeed, many people have expressed their great enthusiasm for having him do so and regard his lecture as one of the highlights of the Congress. But I respect your right to dissent and will be sorry to lose you as a member of EEA .

Best regards,

Tim Besley

*Subject: Mistakes Were Made (but not by me)*

*Date: Thu, 27 May 2010 03:27:34 -0300*

*To: Tim Besley*

If harsh words are spoken about some of the greatest among the intellectual leaders of mankind, my motive is not, I hope, the wish to belittle them. It springs rather from my conviction that, if our civilization is to survive, we must break with the habit of deference to great men. Great men may make great mistakes ; and... some of the greatest leaders of the past supported the perennial attack on freedom and reason. Their influence, too rarely challenged, continues to mislead those on whose defence civilization depends, and to divide them. The responsibility for this tragic and possibly fatal division becomes ours if we hesitate to be outspoken in our criticism of what admittedly is a part of our intellectual heritage. By our reluctance to criticize some of it, we may help to destroy all of it.

—Sir Karl Popper, *The Open Society and Its Enemies*, 1944

Dear Tim,

I am writing to inform you that you have made a great mistake.

The nature of your mistake occurred to me on 12 April – and I apologize for the time it has taken for me to bring it to your attention – but I do hope you may find this offering better late than never.

Please recall two EEA communiques dated 12 April:

*Subject: EEA Membership # 7962*

*Date: Mon, 12 Apr 2010 13:53:22 -0300*

Greetings,

I would like to resign my membership – if possible, please refund the unused portion of my membership dues.

Thank you.

*Subject: Your EEA 2010 Paper Submission has been withdrawn*

*Date: Mon, 12 Apr 2010 17:12:30 +0100*

We have sent you this automated email to confirm the following paper has been withdrawn:

Why did I resign my membership?

Why did I withdraw my submission?

Well, it certainly didn't have anything to do with the prospect of coming to Scotland – because indeed, as inferred by the inspired email copied below, I was thrilled.

In fact, you simply cannot imagine how excited I was about the prospect of attending the 25<sup>th</sup> Congress – the opportunity to bring my wife – a native Prince Edward Islander and descendant of the notorious MacDonald and Campbell highland clans – to see Glasgow, to visit the economics department, walk the very halls in which Adam Smith walked, thought, and taught. And perhaps even the opportunity to meet the eminent Adam Smith Chair of Political Economy, Professor Ronald MacDonald (just wondering: had it occurred to anyone that perhaps the Adam Smith Chair of Political Economy or one of his colleagues might be an ideal candidate for this lecture?)

Thus I trust you may be able to imagine the utter horror I experienced when I discovered that you and your colleagues had slated Professor Stiglitz to deliver the Adam Smith Lecture.

Surely I am not the first person to bring this grave error to your attention, as Professor Stiglitz has about as much in common with Adam Smith as Adam Smith had in common with Carl (or Groucho) Marx. Needless to say, I withdrew my paper at once. It also seems rather – perhaps even cruelly – ironic that Stiglitz and his influential non-realist, collectivist, relativist cronies have duped an entire continent into believing that the “European Union” (and the Euro, naturally) are theoretically possible (which of course they are not: economic power is a derivative function of military power (and thus political power) – they are inseparable. The recent SNAFU over European airspace jurisdiction should make this all very painfully clear.

In any case, it seems to me that a Professor at the great University where both Popper and Hayek's realist wisdom was so keenly felt, observed, and honoured would know better than to slate a fool for such an important lecture. If you'd like to reciprocate with your thoughts, criticisms, or explanations, naturally I'd be grateful for whatever remarks you may wish to offer.

Sincerely, Matt Funk

PS: And if you could please check on the status of my refund, I'd appreciate it.

*Subject: The Scottish Enlightenment*

*Date: Wed, 26 May 2010 23:52:46 -0300*

Dear Eve,

Thanks again for sending along your paper and slides – it was great to have the opportunity to review them prior to your fantastic talk, thanks for coming to UPEI!

I'm very excited to hear that you'd like to read Herman's *How the Scots Invented the Modern World: The True Story of How Western Europe's Poorest Nation Created Our World & Everything in It*. Yes, again, it may be true that the U.S. is a great melting pot of sorts, but that pot was founded and cast in the Scottish Enlightenment:

Canada and the United States should be more alike than they are. Once parts of the same British Empire, they share a common language, a common geography, and a common economic fate. Both are, in their own way, nations of immigrants – including, in both cases, sizable and influential numbers of Scots.

Yet their histories run in very different directions. The development of Canada was largely a public enterprise, controlled and in many cases financed from the top down. The Hudson's Bay Company started that tradition; the building of the Canadian Pacific epitomized it. Americans built their world around the principles of Adam Smith and Thomas Reid, of individual self-interest governed by common sense and a limited need for government. The U.S. Constitution of 1787 enumerated the powers of the federal government, and left the rest to the individual

states [*i.e.*, the 10th Amendment, as I noted during your Q&A]. The Canadian Confederation of 1867 explicitly gave the provinces certain powers, and kept the rest for itself.

If you're really interested in putting together a conference with this theme in mind, I'd love to help organize it from this side of the Atlantic – the prospect of walking the same halls that Hume and Smith walked is enticing. My research is, essentially, an exploration of Popper's solution to Hume's Problem of Induction within the context of Smith's *The Wealth of Nations* – I had a rather Scottish paper (reference #19 of the attached) I had hoped to present at the upcoming European Economic Association conference in Glasgow, but quickly withdrew it when I discovered Joseph Stiglitz was delivering the Adam Smith lecture – I can't think of an economist anywhere who knows any less about the true nature of *The Wealth of Nations* :-).

In fact, when I said that I was looking forward to attending your talk because 1) I'm interested in the problem of regional autonomy and self-determination, and 2) the fact that you're Scottish, I should have added 3) the fact that you're teaching at the University of Edinburgh because everything – from our Declaration of Independence to our Constitution to our institutions of higher learning – were brought to life in that realistic, humanistic, ideally-shaped vessel of the Scottish Enlightenment.

And the University of Edinburgh may be the perfect example...

Nasar's fantastic *A Beautiful Mind* indirectly highlights the fundamental impact Scottish thinkers had on, what in John Forbes Nash Jr.'s era, was arguably one of America's brightest guiding lights (though I no longer believe it serves in this capacity): Princeton University.

Princeton in 1948 was to mathematics what Paris once was to painters and novelists, Vienna to psychoanalysts and architects, and ancient Athens to philosophers and playwrights. Harald Bohr, brother of Niels Bohr..., had declared it "the... center of the universe" in 1936.... What was proposed in a Princeton seminar one week was sure to be debated in Paris and Berkeley the week after, and in Moscow and Tokyo the week after that.

Princeton's golden era giants – Godel, Oppenheimer, von Neumann, Wiener, Morgenstern, Tucker, Wigner, Veblen, and, perhaps most emblematically, Einstein, Leftschetz, and Nash, all “valued independent thinking and originality above everything.”

No one was more obsessed with originality, more disdainful of authority, or more jealous of his independence. As a young man he was surrounded by the high priests of twentieth-century science – Albert Einstein, John von Neumann, and Norbert Wiener – but he joined no school, became no one's disciple, got along largely without guides or followers. In almost everything he did – from game theory to geometry – he thumbed his nose at the received wisdom, current fashions, established methods. He almost always worked alone, in his head, usually walking, often whistling Bach. Nash acquired his knowledge of mathematics not mainly from studying what other mathematicians had discovered, but by rediscovering their truths for himself.... His indifference to others' skepticism, doubt, and ridicule was awesome.

And, as Popper reflected in his *Unended Quest* – a quote featured prominently on the cover of an exhaustive quest for regional autonomy and independence on Prince Edward Island [DS §8].

I liked America from the first, perhaps because I had been somewhat prejudiced against it. There was in 1950 a feeling of freedom, of personal independence, which did not exist in Europe and which, I thought, was even stronger than in New Zealand, the freest country I knew. These were the early days of McCarthyism... but judging by the general atmosphere I thought that this movement, which was thriving on fear, would in the end defeat itself. On my return to England I had an argument about this with Bertrand Russell....

The greatest and most lasting impact of our visit was made by Einstein. I had been invited to Princeton, and read in a seminar a paper on [quantum and classical physics]... In the discussion Einstein said a few words of agreement, and Bohr spoke at length....

I learned to my surprise that Einstein thought my suggestions concerning simplicity... had been universally accepted, so that everybody now knew that the simpler theory was preferable because of its greater power of excluding possible states of affairs; that is, its better testability....

It is difficult to convey the impression made by Einstein's personality. Perhaps it may be described by saying that one felt immediately at home with him, his good sense, his wisdom, and his almost childlike simplicity. It says something for our world, and for America, that so unworldly a man not only survived, but was appreciated and so greatly honoured.

You see, Popper was partly wrong about this. It didn't just say something for our world and for America, it also said something for Scotland.

I had, essentially, made the same mistake regarding Princeton that I had made regarding the U.S. Constitution: the same curiosity which compelled me to explore the origins of the soundness of U.S. Constitution (and the 10<sup>th</sup> amendment, in particular) sent me in search of the origins of this academic excellence and extraordinary incubator of scientific discovery. And, once again, to my surprise, I discovered that Princeton wasn't an American institution, afterall:

The opportunity to shape "that great design" and make the College of New Jersey its educational epicenter seemed so strong to miss. We will never know whether Rush's own appeal affected his final decision. But on February 4, 1786, Witherspoon informed him his doubts were resolved and he would take up the presidency of Princeton....

On May 10 he informed his saddened parishioners that he was leaving them and Scotland forever. On the eighteenth he and his wife boarded a ship at Greenock bound for America. They reached the mouth of the Delaware River on Saturday, August 6, after a harrowing trip of nearly eleven weeks. That Sunday, John Witherspoon landed at Philadelphia, greeted by a throng of church officials and well-wishers. Five days later they set out by carriage for Princeton. As Witherspoon and his wife came up the drive that night, they found Nassau Hall, the building that housed the college and its students, ablaze with light. The students had asked permission to illuminate the college in honour of their famous new president, and had hung Nassau Hall with dozens of candles, lamps, and lanterns, an iridescent beacon in the surrounding darkness.

Once in office, Witherspoon proved to be the opposite of the stereotypical narrow-minded Evangelical hard-liner. He intended to make Princeton not only the best college in the colonies, but in the entire British world. The model he chose was his own Scottish *alma mater*, the University of Edinburgh, as its curriculum would be the rigorous humanistic one that Hutcheson and others had introduced at Glasgow. Witherspoon saw education not as a form of indoctrination, or of reinforcing a religious orthodoxy, but as a broadening and deepening of the mind and spirit – and the idea of freedom was fundamental to that process. "Govern, govern always," he told his faculty and tutors, "but beware of governing too much. Convince your pupils... that you wish to see them happy, and desire to impose no restraints but such as their real advantage, and the order and welfare of the college, render indispensable." Under his guidance, Princeton became... a principal conduit for the flow of Scottish ideas into the culture of the colonies."

And although Princeton may, to a certain extent, be resting upon its laurels, American University's have largely managed to preserve this distinctly Scottish trait and comparative advantage into the present – and I believe this serves a valuable lesson and guiding light for every university on earth.

This was, in fact, a point 2009 Nobel Laureate Willard Boyle made during an interview moments after his prize was announced (I had the wonderful opportunity to discuss this with Boyle; I briefly relate the spirit of our conversation within the cover-page footnote and in section 3 of the curious 3-page Dissertation attached herewith).



I'll bring this long yarn to a rapid close with the hope that I have thoroughly inspired you to read *The True Story of How Western Europe's Poorest Nation Created Our World & Everything in It*.

I am proud to be an American – and proud to be a Canadian – but I am also proud to be a Scot!  
Thanks again, Eve!

Through we must march on without exploring the above, I will merely remark that at least one true scholar and generous correspondent seems to find value in my insights and illuminations upon the Enlightenment.<sup>§</sup>

*Subject: The Scottish Enlightenment*

*Date: Mon, 31 May 2010 00:32:10 +0100*

Dear Matt,

Many thanks indeed for your email - your thesis topic sounds absolutely fascinating, and I thoroughly enjoyed reading the passages you sent me – I'm learning new things about my homeland (and my university) every day!

I will certainly buy a copy of that book when I'm back in Edinburgh, and will make sure my husband (who's American) reads it too! You've whetted my appetite to learn more about the Scottish Enlightenment, to see if I can trace an influence in the work of some of my Scottish colleagues today (and indeed, subconsciously, my own). You're absolutely right – the Enlightenment is something that we Scots should celebrate more.

Alas, I leave Charlottetown tomorrow morning for Montreal, where I'm attending a conference – my time here has completely flown by! But please do stay in touch and let me know how your thesis is coming along, and thanks again for coming to the lecture last night – it was lovely to meet you.

All the best, Eve

Dr Eve Hepburn

Depute Director, Academy of Government

Senior Research Fellow in Politics

University of Edinburgh

To which I replied early this morning...

*Subject: The Scottish Enlightenment*

*Date: Mon, 31 May 2010 03:31:36 -0300*

Dear Eve,

Thank you for your generous reply, and thanks again for sharing your illuminations with us here on Prince Edward Island!

I'm glad (indeed, honoured) to hear that you find my thesis topic intriguing, but I must warn that those three pages are extremely compressed, and thus may ultimately raise more questions than it answers. But you may note a key reference which steers readers to *The Principles of Economics & Evolution: A Survival Guide for the Inhabitants of Small Islands, Including the Inhabitants of the Small Island of Earth*, a comprehensive 1,354 page treatise on the thesis at hand. Although this may sound daunting, it's actually a thoroughly readable, rather entertaining, 121 page discourse with a completely optional 1,233 page appendix, published by The Lifeboat Foundation as a Scientific Advisory Committee Report on 5 May 2010, which is freely and readily available to all:

<http://lifeboat.com/papers/matt.funk.on.the.principles.of.economics.and.evolution.pdf>

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§ The genuine discipline of the Enlightenment, the true rationalist, does not even want to persuade, nor even to convince. He remains always aware that he may err. Thus he esteems too highly the independence of the other person to try to sway him in important matters; rather he wants objections and criticisms. He wants to arouse and stimulate the cut and thrust of argument. This is what is valuable to him. Not only because we may approach truth better with the free exchange of opinion, but also because he values this process as such (Popper 1999, pp 206-207).

Furthermore, thoroughly inspired by your fantastic talk and further reflexions upon the Scottish Enlightenment, I refined and updated this report in celebration of today, Memorial Day 2010! If and when time permits, I believe you and your husband may find this unabashedly American-Scottish-Canadian treatise of interest.

And if you do explore this report, you may discover that my “3-page PhD thesis” was merely the first of three segments, which will unite under the banner of *On The Principles of Economics & Evolution II: In Search of Evolutionarily Stable Finance, Banking & Alternative Investment Strategy*; perhaps one component of this forthcoming exploration of systemic financial risks which may be of special interest to you, is my conjecture that, in many ways, Malta's contemporary approach to financial market stability is more in line with Scottish Enlightenment thinking than current policies in most jurisdictions today (including Scotland and the United States – the SEC seems particularly confused at the moment).

And, finally, since you indicated that you were interested in reviewing my Åland paper, you may find it referenced and linked in the bibliography of the above-noted report as Funk 2008c. Although I believe the fundamental analysis (and original formulation for my theory of value based upon relative insularity, by the way) I presented in this paper remains sound, as I remarked, this early work is somewhat unrefined, immature (though fully spirited!), and I have since recanted a few minor positions tabled therein. Another reference which you may find of use insofar as your researches into the autonomy of Prince Edward Island are concerned is Funk 2009b: *On the Truly Noncooperative Game of Island Life: Introducing a Unified Theory of Value & Evolutionary Stable 'Island' Economic Development Strategy*. MPRA 19049:1-113 – <http://mpra.ub.uni-muenchen.de/19049/>

I hope you enjoy Montreal and that your conference goes well. If you have the chance, I highly recommend a pilgrimage to Schwartz's to sample the original Montreal smoked meat sandwich! The best meal my wife and I have had anywhere in Canada was at Toque, but it's not the same value-proposition as Schwartz's.

It was a pleasure to meet you too, please stay in touch – I'm especially interested to hear the truths you may uncover with your present research endeavours.

Bon voyage!

Marching on, I must suggest a few more preliminary – *perhaps even prerequisite* – readings, as my researches have, once again, proven somewhat difficult to follow.

Of course this is mere speculation, but over the past year it has occurred to me that the difficulty may arise from two different sources, one cultural, the other intellectual. Ironically, it appears that the cultural difficulty presents more of a challenge than the intellectual difficulty. Several cultural phenomena and superannuated hypotheses conspire to make otherwise elementary lessons on the *Struggle for Life* (Darwin 1859) difficult for many to consider, much less comprehend. Thus I encourage you to listen very carefully to what I am about to say.<sup>§</sup>

Those who know me or have generously read and critiqued my working papers and publications, certainly have the advantage of having a fairly clear picture of worldview and central outlook. My wife, for example, is all-too-aware of my emphasis upon strategy and survival: On any given day, she may peer into the back of our 6,200 pound, fully-

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§ All of you watch me. Don't look around... Listen to what I say... Whoever... listens to what I say, will have long life. One who doesn't listen..., will have a short life (Campbell 1949, p 349-350).

boxed frame 2007 Chevrolet Suburban and see four sleeping bags, two totes of survival gear, and an entire tote of survival manuals and field guides. This is merely SOP in the Funk household. Last month she had filled my Christmas stocking with a gift I was thrilled to receive (and have used every day since January 1<sup>st</sup>): *The Worst-Case Scenario Survival Handbook 2010 Calendar* (Piven, Borgennicht & Brown 2009), which happens to sit by my laptop as I write this letter to you. And as I flipped through the pages moment ago, searching for a fitting analogy with which to contextualize these menacing cultural difficulties, I noted the entry for Friday, 29 January 2010, entitled, "Today's Hero":

Steven Callahan set sail for the Caribbean from the Canary Islands on this day in 1982. His small sloop sank six days into the journey, however, and as the sloop went down he barely managed to board his inflatable raft with a scant amount of supplies. Two weeks later, he killed some fish with a speargun for food, but the isolation and hunger were taking their toll. After more than two months afloat, during which he fought off sharks and battled tropical storms, he spotted land. Jagged reefs and steep cliffs made it impossible to come ashore, and his hope was fading fast. He soon heard the motor of an approaching fishing boat from the island, coming to rescue him (Piven, Borgennicht & Brown 2009).

Although you may not recognize it yet, you are Steven Callahan and my voice is the low, muffled, yet steady murmur of a diesel engine, drumming through perilous seas of thought, steadily advancing toward you. I have tossed a yellow, tethered life-ring into these dark and stormy waters – perhaps you may see it now – but of course it remains up to you to choose whether or not to take ahold and climb aboard.

I have addressed this cultural difficulty directly at length elsewhere (*e.g.*, DS §11), but I'll offer another concrete example of the type of cultural difficulty to which I allude; this also happens to offer a segue-way into the intellectual difficulty at hand. I'll offer an example with a recent exchange with Dr Roberts.

*Subject: Expert truck analysis request*

*Date: Sun, 3 Jan 2010 01:11:34 +0000*

I am looking to pull the trigger on a truck sometime later this month. I have also piqued my father's interest... We would both be very interested to have your research notes on this. We are looking for trucks that are 'safe'. We are particularly interested in the Ford F-150 and Chevy Silverado both, with the crew cab. Let me know what you know. Later buddy, Andy.

*Date: Sat, 02 Jan 2010 22:35:43 -0400*

I'm on it, Doc, in the meantime, download this paper: <http://mpra.ub.uni-muenchen.de/19049/> [DS §8], turn to page 110 (Appendix IX, ON THE PROBLEM OF HEAD-ON COLLISIONS), and take a look at this short one-page letter I wrote to Marcy last Christmas. Feel free to pass along this link to anyone else considering the evolutionary stability of full-sized trucks (it seems this should be everyone you know!).

Date: Sun, 3 Jan 2010 02:45:30 +0000

That page is extremely poignant and concise. I may have to post it in my new shit-kicker of a tank-truck. I would love to see you add your cost analysis of a few more pennies for gas versus the cost of surgery, physiotherapy, nursing care and wheelchairs...haha, Andy.

A little back-story may help illuminate this excellent, counter-intuitive example of *The Prisoner's Dilemma* (Tucker 1950): You may have found it a bit odd that a problem-solver focused upon *The Problem of Sustainable Economic Development* (including all related problems, such as *The Problem of Global Warming*, naturally), may be driving and recommending full-sized, fully box-framed, 6,000 – 7,000 pound, V-8 trucks. And this is exactly the tricky intersection between the cultural difficulty and intellectual difficulty to which I had referred: popular culture pressures consumers to buy and drive small, lightweight, fuel-efficient vehicles, but game theory suggests a diametrically opposed strategy (DS, p 264).

You see, for the past few years I had been urging Dr Roberts to consider this illusive dilemma (Tucker 1950): Miles per gallon are irrelevant data insofar as the economics of automobile ownership is concerned, it's all pure Newtonian physics – *mass trumps all*. Alas, however, we (humans) face difficulty when it comes to learning through abstraction – experience typically offers the most persuasive lessons (children invariably learn that stoves are hot by getting burned, not by being warned), and thus ESS (*cf* DS, p 858) for automobile safety did not take hold with my friend, Dr Roberts, until 31 December 2009, when he, his wife, Roya (whom, along with my wife Marcy, are two of the best and most beautiful nurses on Earth), and their newborn child were headed through Quebec, on their way back home to Ottawa.

As they drove their minivan along an icy, notorious stretch of Highway 185, just south of Rivière-du-Loup, they were the first to arrive on the scene of a tragedy. Here's a news report of this scene from the following day...

Two people died and three were badly hurt in a... collision Thursday in Quebec's Bas-Saint-Laurent...

A man from suburban Montreal, in his 30s, lost control of his car and veered into the oncoming lane on Highway 185 near St. Honoré-de-Témiscouata, about 40 kilometres southeast of Rivière-du-Loup.

He was struck on the passenger side at about 11 a.m. by another vehicle carrying a family of four. The man died in the crash, police said, while a 13-year-old girl in the oncoming car was critically injured and died later in hospital (CBC 2010).

Dr Roberts and his wife spent a harrowing hour applying first aid and CPR to the 13-year old girl, her sister, and the other occupants of both vehicles. Hours later, as they headed on to Ottawa later that afternoon, Dr Roberts reflected upon the fact that the horror they had encountered and struggled so valiantly to mend did not result from blunt-force injuries, but

rather rapid deceleration (*cf* 4, p 110); and thus, a few days later, he decided that I was on to something afterall.

But I am pleased to report good news in this revised Second edition: I was pleased to discover that Dr Robert's father is the proud new owner of a Ford F-150 pickup; this gives me hope that my lessons do not all fall upon deaf ears, and, moreover, that there may even be hope that I'm able to teach the lessons I've learned. Last week I also became aware of a report (IIHS 2009) which offers support for my truck-strategy, which I highlighted in a broadcast a few days ago:

*Subject: Top-10 "Luxury" Vehicles*

*Date: Tue, 25 May 2010 06:29:34 -0300*

Someone has finally taken the time to formally debunk (see attached [IIHS 2009]) the NHTSA's maliciously (and tragically) misguiding "safety" reports. The most valuable lesson may be the 1,800 pound/3,600 pound car comparison on page 2. Yes, I've been going on about this for years, but for those who haven't already heard it, consider *On the Problem of Head-On Collisions*, a great Christmas parable on page 110 (111 of the .pdf file) of the paper linked here: [http://mpr.auburn.edu/~mpr/19049/1/MPRA\\_paper\\_19049.pdf](http://mpr.auburn.edu/~mpr/19049/1/MPRA_paper_19049.pdf).

**The bad news:** It cost a lot more than most think to acquire true "5 Star" safety ratings.

**The good news:** Many "luxury" vehicles (*i.e.*, 4-6) may be acquired for much less than most think.

But in any case, #5 with a V-10 (Ford switched to lighter steel in 2010) and #6 with Ford's new 6.2 liter V-8 and 6 speed transmission (configured as an XL work truck, 6.75' bed, cruise, & skid plates) are my top value selections...

#1 – 2011 Prevost Custom Coach – **44,000 lbs.**

#2 – 2011 Conquest Knight XV – **13,000 lbs.**

#3 – 2011 Mercedes-Benz S600 Guard – **11,700**

#4 – 2011 Ford F-450 Crew Cab 4X4 – **8,900 lbs.**

#5 – 2009 Ford F-250 Crew Cab 4X4 – **7,500 lbs.**

#6 – 2011 Ford F-250 Crew Cab 4X4 – **7,300 lbs.**

#7 – 2011 Maybach 62 S Sedan – **6,300 lbs.**

#8 – 2011 Maybach 57 S Sedan – **6,000 lbs.**

#9 – 2011 Rolls-Royce Phantom – **5,900 lbs.**

#10 – 2011 Bentley Arnage RL – **5,800 lbs.**



Fig. III – *Evolutionarily Stable Personal Transport Strategy*

In fact, this dimly seen dilemma (Tucker 1950) is what first brought the analytical power of game theory to my attention, and this is why 15 December 2007 marked the beginning of a productive and fruitful relationship...



Fig. IV – *Theory of Games and Economic Behaviour* [Neumann & Morgenstern 1944]

Although I had been studying economics for nearly a decade, I had always shared Ariel Rubinstein's healthy skepticism; as he summed it up in the Afterword of my 60<sup>th</sup> Anniversary edition of the seminal *Theory of Games and Economic Behaviour* (Ibid):

So is game theory useful in any way?...

There are those who believe in the power of game theory to improve performance in real-life strategic interactions. I have never been persuaded that there is a solid foundation for this belief. The fact that academics have a vested interest in it makes it even less credible (Ibid, p 634).

Yes, I was as skeptical as Rubinstein, but I wanted to find out if he was right. So, on 15 December 2007 I bought this seminal work and endeavoured to study game theory until I was able to answer his question for myself. And, eventually, once I discovered that I was able to utilize game theory to derive my solution to *The Problem of Head-on Collisions*, I concluded that my skepticism was misplaced, that the theory of games was indeed useful. And I have been using it ever since.

This thesis may require the acquisition of a few esoteric analytical tools, including several tricks from the game theory trade; this unavoidable difficulty evolved from the fact that the problem which I have solved, namely, the problem of sustainable economic development, simply required a somewhat advanced and diverse collection of problem-solving tools.

But game theory is nearly as difficult as it sound, fluency may be gained in short order, and I'm able to point-out several great short-cuts. It is not necessary, for example, to spend any time with the extraordinary but extraordinarily heavy \$42.00 door-stop featured in Fig. III – indeed, as I will detail in due course, it is entirely sufficient to begin by exploring a realm Morgenstern & Neumann (1944) were unable to conceive.<sup>§</sup>

To this salient point, the opening paragraph of my forthcoming *Proceedings* publication (DS §5) notes 45 key texts which glimmer as our “most brilliant illuminations, most valuable problem-solving tools, and most informative sources for long-term human survival strategies”. These works may also be duly considered prerequisite background materials for unified theory I have introduced and illustrated within this letter.

And thus, as you may begin to see, depending upon your fluency with these prerequisite works and your familiarity with these conceptual tools, it may take some time and intellectual effort to begin to recognize and grasp the extraordinary and revolutionary nature of this unconventional thesis.

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§ It is important to recognize that the results that I have enumerated did not respond to some suggestion of von Neumann, nor did they follow work that he had outlined or proposed; rather they were revolutionary new ideas that ran counter to von Neumann's theory. In almost every instance, it was a repair of some inadequacy...as outlined by von Neumann and Morgenstern, and indeed in the case of Nash's cooperative and general non-cooperative theory, von Neumann and Morgenstern criticized it publicly on several occasions....

This suggests a second part of our answer to the question: “Why did it take so long for economists to recognize game theory as crucial to their held?” It is a historical fact that initially the main financial support for research in this area came from military agencies in the United States. Quoting Aumann..., “The major applications were to tactical military problems: defense from missiles..., fighter-fighter duels, etc....

In any event, it was into this environment at Princeton of research ferment that the twenty-year old John Nash came in September of 1948. He came to the Mathematics Department with a one sentence letter of recommendation...: “This man is a genius.” As his thesis advisor, Professor A.W. Tucker was to write several years later: “At times I have thought this recommendation was extravagant, but the longer I've known Nash the more I am inclined to agree that [it] was right.” If we [subtract] the date of Nash's arrival in Princeton... from the date of submission by Solomon Lefschetz to the *Proceedings of the National Academy of Sciences* of the main result of Nash's thesis, November 1949, we find the results for which he is being honoured... were obtained in his first fourteen months of graduate study (Kuhn 1994, p 162).

Although I have detailed this quest elsewhere (DS §8), I will briefly relate that, as George J. Stigler wisely observed (1982), economic theory rests upon an inherently false and incredibly misleading foundation: a foundation unsupported by a theory of value. Therefore, any meaningful solution to the problem of sustainable economic development must address this problem prior to making any headway. It's amazing that countless solutions are regularly tabled without acknowledging – *much less solving* – this nontrivial problem. Furthermore, the tools which have proven the most useful in my quest to ultimately derive such a theory, were, again, those handy tools readily available in the theory of games because “game theory is important in its general applicability to a variety of conflict situations—political and military as well as economic” (Jentzsch 1963, p iii).

Although very little knowledge of the theory of games is required to grasp the significance, beauty, logic, and expressive power of my core game-theoretical development (DS §7), elementary familiarity with foundational works (*e.g.*, Nash 1950a ; 1950b ; cf Holt & Roth 2004), or, at the very least, a general introduction (Williams 1954) which is, thankfully, readily and freely available to all,<sup>§</sup> may prove helpful.<sup>£</sup> Indeed, I have anecdotal evidence that deep understanding may prove impossible without a review of these texts. Here, for example, is how I recently endeavoured to introduce my thesis:

*Subject: On Cosmology & Economics*  
*Date: Thu, 22 Apr 2010 21:17:00 -0300*  
*To: Nathan Myhrvold*  
*CC: Bill Gates*

Dear Dr Myhrvold,

I am following up with you per the correspondence copied below, as it does indeed appear that my proposal is relevant to your objectives at Intellectual Ventures.

After reviewing your biography, as a physicist and strategist, I believe you may find my proposal of particular interest, especially as it relates to cosmology, human evolution, alternative investment strategy, and my forthcoming publication: *On the Origin of Mass Extinctions: Darwin's Nontrivial Error* – <http://mpra.ub.uni-muenchen.de/20193/>

If you're interested in hearing more about my proposal, I'd be happy to provide details – either via email or, if you'd prefer, in person.

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§ When *The Compleat Strategyst* was originally published in 1954, game theory was an esoteric and mysterious subject, familiar only to specialized researchers, particularly in the military. Its popularity today can be traced at least in part to this book, which popularized the subject for amateurs, professionals, and students throughout the world. It has been reprinted numerous times and has been translated into at least five languages, including Russian and Japanese. Now, more than fifty years after its first publication as a RAND research study, and to celebrate RAND's 60th Anniversary, RAND is proud to bring this classic work back into print in paperback and digital formats (Williams 1954, web copy).

£ In the end, it seems that we have produced a primer on Game Theory, for home study. We believe that you can sit down with it and, with the normal difficulties which attend intellectual effort – painful, but not mortal – learn to formulate and solve simple problems according to the principles of Game Theory. This, it seems to us, is itself a somewhat desirable good. The examples, it is hoped, will have a more important effect, for they are intended to touch the imagination; by couching them in terms of a very diverse set of activities, we have tried to encourage you to view some of yours in the light of Game Theory (Williams 1954, p x).



*Subject: The Road Ahead*  
*Date: Thu, 22 Apr 2010 20:22:04 +0000*  
*From: Office of the Chairman, Microsoft Corp.*

Thank you for contacting Bill Gates at Microsoft. We reviewed your email with interest and found your correspondence may relate to Intellectual Ventures, which is a separate organization from Microsoft Corporation.

For information about how to contact Intellectual Ventures and the work they do, please visit:  
[www.intellectualventures.com](http://www.intellectualventures.com).

*Subject: The Road Ahead*  
*Sent: Wednesday, April 21, 2010 14:59 PM*  
*To: Bill Gates*

Dear Mr Gates,

As F.A. von Hayek remarked in *The Constitution of Liberty* [1960], “However able a man may be in a particular field, the value of his services is necessarily low in a free society unless he also possesses the capacity of making his ability known to those who can derive the greatest benefit from it.” This is a difficult problem. Indeed, after reading *The Road Ahead* in 1995, I mailed you a copy of my CV and a one hundred dollar bill in an attempt to garner your attention, and thus make my abilities known.

Alas, I had few abilities and little else to offer. You were kind enough to return my one hundred dollars.

But much time has passed, I have traveled far, and at last I have much more than \$100 to offer:

The great mathematician and distinguished Manhattan Project alum Stanislaw Ulam once challenged fellow Hoosier and 1969 *Sveriges Riksbank Prize* winner Paul Samuelson to name one theory in all of the social sciences which was both nontrivial and true. Samuelson [1969] countered with Ricardo's theory of comparative advantage, remarking, “That it is logically true need not be argued before a mathematician; that is not trivial is attested by the thousands of important and intelligent men who have never been able to grasp the doctrine for themselves or to believe it after it was explained to them.” In short, I arrived at the same conclusion regarding another nontrivial theoretical development, which I have recently tabled as a far stronger rebuttal to Ulam's challenge: *On the Origin of Mass Extinctions: Darwin's Nontrivial Error*. You may find a draft of this priceless testament to my abilities here: <http://mpa.ub.uni-muenchen.de/20193/>

In short, I have a proposition I would like you to consider, and would be pleased to detail my proposal in a follow-up email alternatively, if you would rather discuss this matter in person, I am willing and able to meet at your convenience. In either case, I hope to hear from you soon.

In summary, as previously noted, I enclosed a core game-theoretical development – my solution to the problem of sustainable economic development at the global level (DS §7) within a rather exhaustive letter detailing my solution to the problem of sustainable economic development on islands and mailed it to the Fellows of the Linnean Society of London (DS §8) – a letter which does indeed inform strategy for the problem of sustainable economic development on islands. Yet, once again, it may prove helpful to take the time to acquaint yourself with an overview of the dominant survival strategy of life on

the island of Earth, and to entertain the possibility that both island and continental strategies (which may appear antithetical to many) are in fact complimentary. Either way, however – with or without extending what may already prove to be a long and difficult journey – I must add that a solid of understanding of *The Prisoner's Dilemma* is absolutely essential. I once offered a seminar, and, when I made a point regarding this fairly well-known dilemma, an otherwise highly-regarded university professor dismissed my argument with a sadly authoritarian air, “Oh, I know about all those falsely incarcerated inmates, but that's irrelevant!” (When I was in elementary school, Sister Barbara-Ann taught me that it's better to ask questions when you don't understand something, rather than pretend like you do.) And thus, to this point, for those who may think *The Prisoner's Dilemma* has anything to do with prisons or judicial systems, my theoretical developments may simply remain beyond reach.

*The Principles of Evolution & Dispersal* (DS, p 237) and *The Law of Superabundance* (Gould 2002), especially as they relate to the most revolutionary book ever written (Darwin 1859), must also be thoroughly understood. Furthermore, prior to digging into *On the Origin of Mass Extinctions: Darwin's Nontrivial Error* and the four key developments cited therein, and then, ideally, perhaps, reflecting back upon this thesis with new eyes, you may wish to consult my handy glossary (DS §19) if you are unfamiliar with the following specialized terms, concepts, and principles: *Axioms*, *Consilience*, *Cultural Evolution*, *Einführung*, *Game Theory*, *Darwinian Fitness*, *Evolutionary Stable Strategy (ESS)*, *The Problem of Induction*, *Resource Holding Power*, *Principles of Dispersal & Evolution*, and, perhaps most importantly of all, *The Tragedy of the Commons*.

As inscribed at the outset, the great challenge which presented itself to me today was “to cozen you into a very difficult type of intellectual activity, while you, a reasonable person with enough trouble already, may crave only relaxation or satisfaction of curiosity” (Williams 1954); thus I have held off on the greatest difficulty until the very end. If you feel up to the running the gauntlet, you may find that exploring the DS as one (very) long argument yields a strong foundation for my unified theory of economic & evolutionary value based upon relative insularity (DS §4), a theory which redefines and reframes the social sciences in a similar manner in which the special theory of relativity redefined and reframed geometry. And so if you should choose to grab a hold of the life-ring which floats upon the water before your eyes, climb aboard, and set sail with me through seas of perilous thought (*i.e.*, DS), you may wish to make yourself comfortable and relax with this analogy in the back of your mind as I fetch you a blanket and a hot cup of tea:

In your schooldays most of you who read this [thesis] made acquaintance with the noble building of [Condorcet's social sciences], and you remember – perhaps with more respect than love – the magnificent structure, on the lofty staircase of which you were chased about for uncounted hours by conscientious teachers. By reason of your past experience, you would certainly regard everyone with disdain who should pronounce even the most out-of-the-way proposition of this science to be untrue. But perhaps this feeling of proud certainty would leave you immediately if some one were to ask you: 'What, then, do you mean by the assertion that these propositions are true?' Let us proceed to give this question a little consideration.

[The social sciences, including economics, set out] from certain simple propositions (axioms) which, in virtue of these ideas, we are inclined to accept as 'true.' Then, on the basis of a logical process, the justification of which we feel ourselves compelled to admit, all remaining propositions are shown to follow from those axioms, *i.e.* they are proven. A proposition is then correct ('true') when it has been derived in the recognized manner from the axioms. The question of 'truth' of the individual... propositions [of the social sciences] is thus reduced to one of the 'truth' of the axioms. Now it has long been known that the last question is not only unanswerable by the methods of [the social sciences], but that it is in itself entirely without meaning (Einstein 1920, pp 7-8).

Setting this difficult analogy aside for now, looking back from here, at the very end, it may appear as if I have done no more than tell a creative, personal, and passionate little story – and if this is true, then perhaps I have accomplished exactly what I had set out to do. And this is simply because

explaining is a difficult art. You can explain something so that your reader understands the words; and you can explain something so that the reader feels it in the marrow of his bones. To do the latter, it sometimes isn't enough to lay the evidence before the reader in a dispassionate way. You have to become an advocate and use the tricks of the advocate's trade (Dawkins 1986, p xiv).

And now that the fourth wall has been broken and the *dénouement* has begun, I'll untie another mysterious knot before a brief curtain call (§ VIII) by re-telling a story about story-telling which ended a similar story in the spring of 1972...

The underlying idea of my theory of knowledge is that problems and attempts to solve them through hypothesis, theories, or conjectures precede all observation. Logically as well as historically, theories come first in our experience of the world – first both in our personal history and in the history of humanity.

What correspond to theories at a prehuman level are dispositions and expectations. Magic and ritual probably have close antecedents in the animal realm. What we humans have in addition is the speech form of story-telling.

The novelty in human language is that it can describe and argue (Popper 1999, p 33).

You see, this entire thesis could have been written with five references and two footnotes upon a single page (DS §3) or, perhaps even with just two references within a single sentence upon a single page: This thesis tables solutions for the problem of sustainable economic development on islands (DS §8) and island-like planets (DS §7), alike.

But, then again, I hope that you might agree that it was *helpful* for me to patiently describe, explain, and contextualize my theories, and argue in their defense so that you may see that they are true.

Yours very truly, Matt Funk, FLS

## § VIII – ON THE ORIGIN OF MASS EXTINCTIONS: AN AFTERWORD

*Subject: Holiday Greetings*

*Date: Wed, 30 Dec 2009 12:33:07 -0500*

*From: The Office of the Prime Minister*

Dear Matt:

On behalf of the Right Honourable Stephen Harper, I would like to acknowledge receipt of your correspondence.

Thank you for writing to the Prime Minister with your holiday greetings.

You may be assured that your thoughtful gesture was most appreciated.

It is at this time of year that Canadians take to heart the true meaning of the season and strive to carry its message of hope and optimism into the New Year.

I have also made note of the attached document, entitled *On the Origin of Mass Extinctions: Darwin's Nontrivial Error*. You may be assured that the article has been reviewed with interest.

M. Bredeson

*Subject: Holiday Greetings*

*Date: Thu, 24 Dec 2009 11:48:07 -0400*

*To: Stephen Harper*

The great fantasy of Christmas still kept him devout. Gant was his unwearied comrade; night after night in the late autumn and early winter, he would scrawl petitions to Santa Claus, listing interminably the gifts he wanted most, and transmitting each, with perfect trust, to the roaring chimney. As flame took the paper from his hand and blew its charred ghost away with a howl, Gant would rush with him to the window, point to the stormy northern sky, and say: "There it goes! Do you see it?" — Thomas Wolfe, *Look Homeward, Angel*, 1929

Sir:

I left my home in Indiana and arrived on Prince Edward Island in June of 2005, and, as I sit scrawling petitions to Santa Claus on Christmas Eve, in the words of Abraham Lincoln, it seems "altogether fitting and proper" [1863 *cf* Barton 1930] that my petitions are devoted to our soldiers — American, Canadian, British, and all other allied troops — on the homefront, upon the Seven Seas, and in Afghanistan.

If you have the opportunity, I would be grateful if you could please pass along my gratitude and, perhaps even a curious Hawaiian Christmas story of sorts: *On the Problem of Economic Power: Lessons from the Natural History of the Hawaiian Archipelago* [DS §8]. I delivered a similar request to President Obama several days ago, but it seems that — despite his familiarity, intimacy, and apparent fondness for Hawaii — he may not have recognized the value of this beautiful island Christmas tale.

I have also attached two gifts for you: *On the Origin of Mass Extinctions: Darwin's Nontrivial Error*, and the festive holiday correspondence, copied on the pages below...

*Subject: Reciprocity*

*Date: Tue, 22 Dec 2009 16:08:32 -0000*

*From: Mary Sharp, The Carlton Club*

Dear Matt,

Thank you for your email and I will certainly forward it to Baroness Thatcher.

However, I am sure you know that she is quite frail these days and it is possible that you will not get a reply.

Kind regards, Mary Sharp

*Subject: Reciprocity*

*Sent: 17 December 2009 03:42*

*To: The Carlton Club*

Greetings from Prince Edward Island,

My wife and I enjoyed our stay at the Carlton Club on our last visit to London, and, as you may note from the email copied, below, I hope to be a guest again soon, during a return visit to present the theoretical development attached herewith [DS §5]; this paper will be published in a forthcoming issue of the *Proceedings of the Linnean Society*, and it occurred to me that perhaps someone I once had the great fortune to meet may appreciate it: Although it seems that I may not have been wise enough at the time to make a lasting impression, it does seem possible that Baroness Thatcher [*cf* 1987] may remember me, as I was a guest at her house nearly two decades ago, with the late Marvin Davis. I realize you may not have the opportunity to pass this paper and my warm regards along, but if you do, naturally, I would be very grateful. Also, I believe that some of your members may find this paper (and the introductory correspondence, copied below) of interest as well, so please feel free to distribute it as you wish.

*Subject: Darwin's Error*

*Date: Tue, 15 Dec 2009 11:40:39 +0000*

Dear Matt, I have contacted the Society who will write to you about your kind offer of presenting a counter argument to *Is biodiversity under pressure?* on 11<sup>th</sup> February 2010 [Linnean 2009].

Kind regards, Brian.

*On 9 Dec 2009, at 14:57, Matt Funk wrote:*

Fantastic Professor Gardiner!

Thank you! I'll send a reformatted draft along on Monday.

Also, I noted an upcoming event at the Society: Profs Knapp & Bridewater's seminar, and I was thinking that if they're having difficulty finding somebody foolish enough to voice the unspeakable side of this argument, that I'd be pleased to come over and do just that: I'd be happy to present a sound, evolutionarily stable, counter-argument based upon the logical, politico-economic implications which follow from *Darwin's Nontrivial Error*. In any case, just thought I'd throw that out there – I've had the opportunity to present this argument many times now, and it can excite some interesting and stimulating discussion. If there's interest let me know and I'll arrange to be at Burlington House for that meeting – I'll be headed to Malta and passing through, anyway. More importantly, however, I'm honoured that you would like to publish my essay and I thank you – it's truly amazing that, after more than 220 years, the society remains utterly unafraid to embrace unfashionable conjectures, and continues to stand tall and gaze unflinchingly over the pages of natural history with a levels of realism, stoicism, and heroics that appear to have been steadily drifting out of our genes since the time of Seneca. If you're able to join me for dinner at the Carlton Club when I'm in town, please be my guest. And one more question before signing off: Do I retain copyright or would I transfer copyright to the society? I only ask because I hope to use some material in one long, forthcoming argument. Please advise. Best, Matt

*On Wed, 9 Dec 2009, at 11:57:40, Brian Gardiner wrote:*

Dear Matt,

Thank you for your article on *Darwin's Nontrivial Error*, which I shall be pleased to publish in a future Linnean. However, could you please send me a copy in the Linnean format, *viz* not in two columns. Kind regards, Brian

**THE GLOBE AND MAIL** 

October 6, 2009

**Canadian winner bemoans bureaucracy**

By Jill Mahoney and Elizabeth Church  
From Wednesday's Globe and Mail



Fig. V – *Canadian Winner Bemoans Bureaucracy*

Canadian whose work in physics led to the development of digital photography says politicians need 'an appreciation for the free will, free spirit of scientists'

The Canadian inventor of technology that led to the birth of digital photography won a Nobel Prize Tuesday. But physicist Willard Boyle had to move to the United States to do his cutting-edge work.

Dr. Boyle, who won the award with former colleague George Smith, warned that managers need to give scientists leeway to come up with the kinds of transformative inventions that are too often stifled by paperwork and red tape.

What scientists face today is "almost disgraceful ... The bureaucrats want to get a hold of the money and ask for business plans. Now do you think that George Smith and I ever wrote a business plan? Not at all," Dr. Boyle, now 85 and retired, told a reporter Tuesday. "You don't have time to do that kind of baloney."

Early in his career, Dr. Boyle got a job at Bell Laboratories, a private research lab in New Jersey where he was given free rein to pursue his interests. He and Dr. Smith, who is American, came up with their invention while sketching possibilities on a blackboard in October, 1969.

"There was something about that institution," Dr. Boyle told *The Chronicle-Herald* in Halifax, where he lives with his wife of 62 years, Betty.

"I guess it was the management and the style and the general environment of the place."

The former co-workers shared part of the Nobel Prize for physics for inventing the first successful imaging technology using a digital sensor: the charge-coupled device, an imaging semiconductor circuit that serves as the "electronic eye" of digital cameras. In addition, the technology, which quickly transforms light into a large number of image points, or pixels, is used in microsurgery instruments and was used to take the first photographs of Mars.

Dr. Boyle, who retired from Bell Labs in 1979, said policy-makers should look at the practices of think tanks that produce Nobel Prize-winners and their useful technology, instead of "pouring money randomly into [things], expecting the same results."

“Usually most of the management people or the politicians haven't got the foggiest idea of what science is all about,” he told the paper. What is needed is “an appreciation for the free will, free spirit of scientists. Give them a chance to do the things they want to do.”

Dr. Boyle and Dr. Smith shared the Nobel Prize for physics with Charles Kao, who discovered how to transmit light signals over long distances through thin glass fibres.

Dr. Boyle, who was born in Amherst, N.S., was home-schooled by his mother until he started high school at Lower Canada College in Montreal. He attended McGill University, earning a PhD in physics in 1950.

News of the prize comes as scholars in Canada and around the world are becoming increasingly concerned about the tendency of governments to wade into research by putting strings on funding. In Canada, moves by the federal government to fund projects directly rather than through arms-length granting councils have come under fire by the academic community, as have restrictions on some money given to the councils.

Chaviva Hosek, head of the Canadian Institute for Advanced Research, a non-profit group that receives federal and provincial funding as well as private sector support, said there needs to be a mix of funding that includes support and freedom for researchers taking “the big risks.”

Opportunities to do research in the private sector are rare in Canada, where research and development investment by business lags that of other developed nations. Business spending on R&D is equal to about 1 per cent of GDP. That's well below the 1.56-per-cent average for OECD countries and the 1.89 per cent spent by U.S. industry.

“The question we really have to ask is where are the next Bell Labs?” said Arvind Gupta, a computer science professor at the University of British Columbia and scientific director of MITACS, a national organization that promotes the value of research to businesses.

While Canada has attracted scholars and fostered talent with programs such as the Canada Research Chairs, the country is struggling to hold on to top graduates and create the kind of culture of research in industry that exists in the United States, Prof. Gupta said.

“How can you get young people to stay here when the research jobs are in the U.S.? I think we as a country have to think about how we can encourage more research-intensive jobs here and who are going to be the research drivers of the future. We are punching below our weight on this one,” he said.

Tom Jenkins, chief executive officer of Open Text Corp., a software company that grew out of the University of Waterloo, said research capacity in Canada is evolving. In the past decade, he noted that Open Text and RIM, the Blackberry maker based in Waterloo, Ont., are in the top 20 spenders on research in the private and public sector in Canada.

“This is a natural outcome of our shift from a manufacturing economy to a services economy,” he said in an e-mail from Japan where he is attending a science and technology conference.

## APPENDIX II – A TIME WHEN SURVIVAL WAS THE ULTIMATE ACHIEVEMENT<sup>§</sup>

Archibald and Eleanor Stark's family were Scotch-Irish from Northern Ireland. They landed in Boston Harbor in the autumn of 1720 after an arduous trip across the Atlantic. The ship had been wracked with smallpox and was refused permission to land. Three children died on the trip. The ship then sailed north along the Maine coast, where they disembarked at a small settlement on the Sheepscott River called Wiscasset. The families suffered a terrible winter in the Maine wilderness, and it was not until a year later that they traveled one hundred and fifty miles through wilderness to Nutfield, (New Hampshire) where Eleanor's father, James Nichols, had settled two years earlier.

John Stark was a product of the frontier he grew up in. Survival was the ultimate achievement. Shaped and molded by the wilderness, he developed and became the embodiment of the virtues that defined most frontiersmen, *i.e.* modesty, self-discipline, independence, frugality, and resourcefulness coupled with a hefty dose of common sense. These virtues remained the cornerstone of his illustrious career. He was one of our great patriots, rising to the challenges of the times and risking everything to turn the dream of independence and freedom from tyranny into the reality that became our United States of America.

The summer of 1776 was a grim period for the American Revolution. After a moral victory at Bunker Hill, the patriots suffered from hunger, smallpox, and lack of supplies, yet they fought courageously even though defeat was a very real possibility. The well-supplied and trained British army was experiencing victory after victory following their humiliating expulsion from Boston.

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§ Subject: Copyright permission

Date: Tue, 19 Jan 2010 11:36:07 -0400

To: Peter Randall

Greetings from Prince Edward Island, Peter,

I am writing to request permission to publish an excerpt from Clifton La Bree's (2007) *New Hampshire's General John Stark, Live Free or Die, Death is not the Worst of Evils* in A TIME WHEN SURVIVAL WAS THE ULTIMATE ACHIEVEMENT, an appendix within a Master's thesis at The University of Prince Edward Island, which, naturally, is intended exclusively for nonprofit educational purposes. This material, which runs from page xi to xiii of La Bree's *Introduction* (2007 hardback, 1<sup>st</sup> printing, 1<sup>st</sup> edition) is clearly cited and judiciously utilized with "fair use", and "the Progress of Science and useful Arts". In brief, my dissertation suggests that La Bree's illustration of our "beloved son" (La Bree 2007, p xiii) is as timeless as it is valuable.

To the best of my knowledge, my proposed appendix falls well-within the "fair use" guidelines of U.S. Copyright Law.

If permission is granted, naturally I will duly give thanks to the publisher and author (as directed) within a prominent note.

I might also add that was fortunate enough to discover and purchase this treasure, signed by the author, from The New Hampshire Historical Society in Concord last summer – in fact, you may find a photograph of yours truly – proudly clutching my gleaming copy of *New Hampshire's General John Stark* – standing by the Stark monument in the *Live Free 2009* gallery at [www.funkisland.org](http://www.funkisland.org)!

Thank you for publishing this treasure; please feel free to share my highest regards with the author.

Thank you for your time and consideration.

Please advise.

Live Free or Die!



That summer, a powerful British army commanded by General John Burgoyne began smashing its way south via the Lake Champlain-Hudson River corridor. If he was allowed to link up with other British formations coming from the west and the south, all that the patriots had been fighting for would have been irrevocably lost. A severed New England and New York would allow the British, with the aid of their powerful Royal Navy, to conquer the northern and middle colonies, south of the corridor, one at a time, with a minimum of resistance.

At the height of the national despair, Brigadier General John Stark, who had earned praise from all who participated in the Battle of Bunker Hill, arrived at Bennington with a New Hampshire militia contingent. Independent, cantankerous, and strong willed, Stark had honed his military and survival skills in the vast wilderness known as the New Hampshire Grants as captain in the fabled Rogers' Rangers. He now reviewed the military situation, and accurately assessed where he could do the most good, disobeying an order from the Continental army to place his command under their control. He steadfastly ignored the demand, leading his formation of irregular fighters against some of the best troops in the world—the British regulars and the Hessian mercenaries. “Undisciplined free men are superior to veteran slaves,” said General Stark.

Stark led his New Hampshire soldiers with skill and audacity against a large formation of Burgoyne's soldiers sent to obtain military stores at Bennington. Stark's tenacious attack lasted only a few hours, but he succeeded in crippling Burgoyne's chances for victory by devastating two of his detachments at Bennington. The British campaign to crush the Americans floundered at Saratoga shortly after Stark's brilliant estimation of the situation and daring execution of the enemy's defeat. Saratoga was the most important battle of the Revolution, and Stark's leadership and ingenuity made ultimate victory possible.

After Saratoga, the French were persuaded to come to the aid of the struggling colonials. Troops, supplies, and warships from France helped to ensure a successful ending to the war that gave birth to our nation. General Stark also served General Washington and the country with distinction as commander of the Northern Department for two tours of duty. For all of his independence, however, he was a good team player, and never lost sight of the cause they were all fighting for.

General Stark wrote to General Washington in 1778: “I have no will of my own... the good of the common cause is all my ambition...” He [is] a strong symbol and the embodiment of the ideals of the American patriot who risked all for country, and stands proudly with those who made it possible. New Hampshire and the nation have a right, even a duty, to call him a beloved son (La Bree 2007, p xi-xiii).<sup>§</sup>

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§ Subject: Copyright permission  
Date: Wed, 20 Jan 2010 15:59:44 -0500  
From: Clifton La Bree

Dear Matt,

Your recent e-mail to Peter E. Randall, Publisher has been forwarded to me.

You have my permission to quote any portions of the book with citations to myself as author and Peter E. Randall, as publisher.

My grandfather, Hedley Heaney, was from Prince Edward Island. We visited the island several years ago and thoroughly enjoyed our stay.

Good luck on your dissertation.

Best regards, Cliff La Bree

### APPENDIX III – ON THE PROBLEM OF ICELANDIC ERUPTIONS

I was travelling in the south of Sweden a few weeks ago, when I heard the rumor that the choice of the Swedish Academy might possibly fall on me. Alone in my hotel room that night, I naturally began to ask myself what it would mean to a poor wanderer, a writer from one of the most remote islands in the world....

I spent my entire childhood in an environment in which the mighty of the earth had no place outside story books and dreams. Love of, and respect for, the humble routine of everyday life and its creatures was the only moral commandment which carried conviction when I was a child....

My thoughts fly to the old Icelandic storytellers who created our classics, whose personalities were so bound up with the masses that their names, unlike their lives' work, have not been preserved for posterity. They live in their immortal creations and are as much a part of Iceland as her landscape. For century upon dark century those nameless men and women sat in their mud huts writing books without so much as asking themselves what their wages would be, what prize or recognition would be theirs. There was no fire in their miserable dwellings at which to warm their stiff fingers as they sat up late at night over their stories.... While their hearts remained warm, they held on to their pens.

– Halldór Laxness, *Nobel Banquet Speech*, 1955

Dr Ragnar Árnason  
Department of Economics  
University of Iceland  
Reykjavik, Iceland

Dear Ragnar:

I am writing to inform you that you have made a great mistake.

The greatness of your mistake occurred to me in the fall of 2008, when the Icelandic economy went super-nova, and, since it's been on my mind a bit more lately, I thought I'd write you a note; in fact – as the world gazes in wide-eyed wonder as *Eyjafjallajökull* oozes glowing goo, and, with those persistent UK debt collectors knocking on your door, I wouldn't be surprised if the nature and magnitude of your error has already occurred to you. The irony here is so thick that I hardly know where to begin, but first I should reemphasize something I shared with you long ago – that I love Iceland – I love Icelandic independence (Laxness 1946), culture, heroic sagas,<sup>§</sup> *Stunning Natural Beauty* (Fig. VI)...

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§ A great swarm of skin-boats was then heading towards them down the fjord.

Thorvald said, 'We shall set up breastworks on the gunwales and defend ourselves as best we can, but fight back as little as possible.'

They did this. The Skraelings shot at them for a while, and then turned and fled as fast as they could.

Thorvald asked his men if any of them were wounded; they all replied that they were unhurt.

'I have a wound in the armpit,' said Thorvald. 'An arrow flew up between the gunwale and my shield, under my arm—here it is. This will lead to my death. I advise you now to go back as soon as you can. But first I want you to take me to the headland I thought so suitable for a home. I seem to have hit on the truth when I said that I would settle there for a while (Author Unknown, c. 1000 A.D., pp 60-61).



*Blue Hot Springs (Fig.VII)...*



*Gorgeous Horses* (Fig. VIII)...



pure waters, wild salmon, and bountiful cod – but the whale almost made me barf.

But of course there's so much more to love.

I love it that the Icelandic loved Bobby Fischer (*cf* DS, p 864).

I love your bookstores, the Lauger spa, and the way that cute Lindsey Lohan-look-alike at Three Fishes says “*Huldufólk;*” and my wife and I love our cute friend, *Sigríður Birna Jónsdóttir*, too.

We even love your expensive drinks, Viking rockstar party etiquette, stinky yogurt, and *Scary Sheep* (Fig IX)...



And yes, I love Halldór Laxness, too...



Figure X – *The Home of Halldór Laxness* – page xciv

And so, as you may well imagine, with these strong emotions, naturally, I've been agonized about the collapse of your economy, the present state of circus-like affairs, and the undoubtedly rough road ahead.

Of course this is even more painful when I consider the fact that I tried to warn you – that I offered to come to Iceland to consider your precarious situation more carefully, and to help remind Icelanders of the principle which, essentially, was intuitively heeded on Iceland for  $\approx 1000$  years: *The Principle of Relative Insularity*. Which is exactly why I'm writing and explain the nature of your mistake, and, perhaps, to help you correct your error.

I should also mention that there's nothing wrong with making mistakes, that, naturally, I make them all the time, and, moreover, we only grow and learn through the correction of error. In fact, feel free to seek comic relief in my account of the the most outrageous and embarrassing mistake of my life, which I chronicled faithfully in DS §7. It was, moreover, the recognition and correction of this error that led to the scientific discoveries detailed herein.

Thus, what I have to say isn't meant to hurt; on the contrary, it's meant to help:

Perhaps you may recall that in the spring 2008 I wrote you, outlining a revolutionary unified economic & evolutionary theory of value based upon relative insularity (DS §4), including my first distillation of this theory, which I had just delivered at a conference (DS §14). Recall that I also noted it's importance was global – *but of special relevance to small island nations – including Iceland*. Recall I also expressed my sincere interest in refining this theory in a PhD dissertation under his guidance at the University of Iceland.

Perhaps you may also recall your curt reply, explaining that you were a “neoclassical economist” and that you were “not interested in any radical theories”. Of course I wasn't at all surprised to receive your note, because our entire graduate programme had witnessed your hubris first-hand – we have all seen your fantastic televised boastings of the wonders of the Icelandic economic machine. And of course I was equally unsurprised that, less than six months later, the Icelandic economy erupted – or rather, imploded and disintegrated without a trace.

In short, I wasn't surprised because I knew something you didn't know.

And I imagine that you still don't know – because I hadn't explained it all that well back in the spring of 2008 – but naturally I have wondered if you've ever thought back about me and just what exactly it was I was getting at.

I do apologize, Ragnar. I realize that I failed to explain this adequately the first time around, but I'm willing to try again. So let's pick up where we left off:

*Subject: On the True Value of Relative Insularity*

*Date: Mon, 07 Apr 2008 19:03:50 -0300*

Greetings again from Prince Edward Island, Ragnar,

Thank you for your honest, straightforward reply....I've been waiting until I had something more concise for you to review, since it did not sound like my research was appealing to you.

I've just returned from Mustique, and, as the email below relates, I'll be presenting a paper on this research in June. Naturally, if you should be attending this conference, I would enjoy the opportunity to meet; otherwise, if you're available sometime between June 12<sup>th</sup> and 16<sup>th</sup>, I could schedule a stop-over in Iceland on my way back to Halifax.

I've been thinking about your email quite a bit over the past few months, and, although I understand that your approach to economics is neoclassical, in light of Professor Popper's *On the Non-existence of Subject Matters* (1956), I would like you to consider the possibility that, whatever it is we endeavour to do, and whatever we decide to call these endeavours, we are merely problem-solvers. Indeed, it seems Popper was quite right: "All life is problem solving" [1999].

Was he at LSE while you were there? I'd be very interested in hearing your thoughts on his work.

Also, I believe that you would agree that there are several open problem in economics, and, as such, any proposed solution to these open problems is likely to be perceived by some (or many) as a "radical" theory.... But that is exactly what it takes to solve an open problem! I've developed a solution to perhaps the most fundamental problem in economics, the problem of Value which Stigler eloquently described in his Nobel lecture [1982]. My theory is founded in the fundamental value of relative insularity, and despite the fact that the simplicity of Mustique models this solution best – Mustique's biogeographic insularity is in fact far less than the biogeographical insularity enjoyed in Iceland (but I'm afraid Mustique and many other nations and states have you beat by a mile when it comes to politico-economic insularity, and I believe I could produce an extraordinary PhD thesis under your guidance – and help you and the good people of Iceland return to your golden era of independence, resourcefulness, and self-sufficiency, which was, once again, your hallmark for nearly one thousand years.

In short, this thesis would serve the islanders across Iceland, and, moreover, the islanders around the world (that is, the entire human population) well.

I have attached a copy of my Field notes from Mustique; I will also attach presentation slides from a recent presentation here at UPEI (which I will modify and update for the Aland conference) in a second email (in the event that the graphics within the attachments require too much bandwidth) [these findings were integrated into DS §8].

Thank you for your consideration; I hope to hear from you soon.

May a whole whale wash up upon your shores...Matt Funk

If you've read this thesis up until this point, chances are you may already have a strong sense of the significance of my solution – and, moreover, the significance of this solution as it relates to you and your fellow Icelanders.

Although it seems remarkable to me that I had my theory fairly well flushed out back in April of 2008, don't feel bad about missing the boat, because, to date, nobody has really been able to fully figure out what the hell I've done.<sup>§</sup>

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§ By the way, no need to worry about my PhD studies, they're underway at The University of Malta – great place, warm weather, conservative fiscal policy, you should visit sometime. Of course it would have been great help you out – I had even fancied that I'd learn Icelandic – but of course you can imagine how relieved my wife and son are that we're not stuck in Iceland.

Indeed, I had attempted to explain this problem at the global level to President Bush (DS §15), Kenneth Griffin (DS §13), and many others (DS, pp 455-464) before the entire global economy erupted and came crashing down – but my effectiveness in communicating the truths that I had found proved equally poor and ineffective.

Recently, however, I attempted to explain this problem to Daniel S. Loeb (DS §12), and it seems this attempt produced somewhat better results. It's also rather ironic that I continue to share and exchange good books and revolutionary ideas with Loeb (see APPENDIX IV), but not with you – because Loeb clearly does not need my good books or “radical” ideas, but it appears perhaps you and the people of Iceland could use a few radical theories afterall – it's quite apparent to all that the “neoclassical” approach didn't ultimately work-out so well on Iceland, afterall. Indeed, as noted in this morning's *Wall Street Journal*, Icelandic politico-economics have – quite literally – become a joke:

*Comic's Party Bests Rivals in IcelandVote*

MAY 31, 2010

By MICHAEL CASEY [michael.j.casey@dowjones.com]

REYKJAVIK—Voters here blew a loud raspberry at Iceland's political establishment Saturday, handing victory in the capital's municipal elections to an upstart political party that ran a blatantly satirical, humor-based campaign.

After promising a polar bear for the Reykjavik zoo and making other unorthodox proposals, the six-month-old Best Party won 34.7% of the vote, securing six of the 15 seats on the city council. It was closely followed by the Independent Party—the traditional powerhouse in the city—with 33.6% of votes and five seats. The Social Democratic Alliance, which currently governs Iceland in coalition with the Left-Green Movement, won three seats while its coalition partner was left with one.

The win for the Best Party—whose slogan loosely translates to “Whatever Works!”—puts its leader Jon Gnarr, Iceland's best-known comedian, in a strong position to become mayor of Reykjavik, a post that is sometimes a launching pad for national politics. Although the Bests are two seats short of an absolute majority, longstanding enmity among the other parties will make it hard for them to agree on an alternative candidate.

Speaking Sunday, Mr. Gnarr said his party's entry into government opened up “a new option for politics.”

He added that his team “will have to work on the infrastructure of the party so that people have a way to understand what the Best Party is about and to learn the benefits of what we are calling 'anarcho-surrealism.'”

Mr. Gnarr said he is confident he will be named mayor, at which time he will immediately order the construction of a polar bear enclosure at the city zoo, all part of his bid to “make Reykjavik a friendlier, nicer and safer place to live.”

As polls began predicting a strong showing by the Best Party earlier this month, its meteoric rise sparked a firestorm of debate in Iceland. Government and opposition leaders alike warned against putting the city in the hands of what they characterized as clowns at a time when Iceland is mired in an economic crisis. But many Icelanders embraced the party as a way to do away with a broken political system.

While the Best Party's critics implored its team of comedians, actors and musicians to end their campaign, Mr. Gnarr insisted he would follow through to the end. It was the best way to expose the “ridiculous” state of traditional politics, he said.

The Bests' victory comes at a pivotal moment for Iceland's 320,000 people. Their tiny economy was arguably the hardest hit by the 2008 global financial crisis, which devastated a domestic banking system that had swollen to 10 times the country's gross domestic product.



The meltdown left Icelanders mistrustful of traditional politicians, even more so after a parliamentary report exposed close ties between the previous Independent Party government and the brash bankers who had fueled Iceland's giant credit bubble, as well as widespread corruption.

Many have seized upon the Best Party as a means to overhaul that system, even if they aren't sure what it will do once in government.

"I think this is very important, because change is a good thing right now," said Oskar Gudson Einarsson, a contractor who didn't vote in the election because he is from the town of Gardabair. "Whether [Gnarr] is the right man to bring that change, I don't know."

Supporters of the other parties are dismayed, however.

"I'm in shock," said Rikey Eggertsdottir, a student who voted Left-Green in the Reykjavik election. "I thought people were just joking with their responses to pollsters during the campaign."

If I had received any indication that you were interested in hearing this, I'd say a few specific things about economic power (of which, Iceland effectively has none, *cf* DS §11), but since I didn't hear back from you the last time I tried to explain this, I'll merely repeat what I've already said:

*Subject: Insularity Lost...*

*Date: Thu, 09 Oct 2008 14:17:31 -0300*

Greetings Ragnar,

I've been invited to deliver a paper outlining my theory of value in November (see below), and I intend to discuss Iceland's dramatic loss of relative insularity, which I submit has been generated by the "neoclassical" economic development strategy pursued over the past three decades (*i.e.* trading away independence and self-sufficiency for inter-dependence, leverage, and undue exposure to global financial markets). I can elaborate if you'd like (and I would be happy to send along the paper I have submitted for this conference as well), but in the meantime, I'd be curious to hear any commentary you'd like to offer on this matter.

Cheers!

*Subject: First international Forum on Insularity in the Mediterranean*

*Date: Mon, 6 Oct 2008 12:56:44 +0200*

*From: AlexandraWilms*

*To: Matt Funk*

Dear Mr. Funk,

We appreciate your participation in our Forum and look forward to receiving your paper within the next days.

Furthermore, we are pleased to inform you that the General Directorate for European Funds will assume travel and accommodation costs for your stay at Palma de Mallorca.

We would therefore like to ask you to confirm your participation and inform us about your preferred travel schedule.

As the Forum takes place Friday, 28<sup>th</sup> of November, General-Directorate for European Funds will assume overnight stays from Thursday, 27<sup>th</sup> of November to Saturday, 29<sup>th</sup> of November.

If you should wish to use the opportunity to stay some more days in Palma, we will contact your hotel to provide you with information about the costs of an extended stay.

We would like to point out that we had to change the structure of the Forum. Please find all changes and information on [foruminsularitat.cbalears.eu](http://foruminsularitat.cbalears.eu)

Should you have any queries, please do not hesitate to contact me.

Looking forward to welcoming you in Palma de Mallorca,

Best regards,

Lexa Wilms  
Centre Balears Europa  
DG de Fons Europeus  
Conselleria de Comerç, Indústria i Energia

*Subject: On the Problem of Icelandic Monetary Policy*

*Date: Sun, 12 Oct 2008 23:48:35 -0300*

Hi Simone...Thought about your inquiry a bit more, and believe I have distilled it a bit more eloquently....

Recall my conjecture that much misunderstanding in “political science” and “economics” (which, of course, as Popper noted long ago, don't exist, *per se*, since all “subject matters” are inconvenient and malignant illusions) results from the failure to grasp that economic power, unlike military power, is not primary, but derivative:

Economic power, unlike military power, is not primary, but derivative. Within one State, it depends on law; in international dealings it is only on minor issues that it depends on law, but when large issues are involved it depends upon war or the threat of war. It has been customary to accept economic power without analysis, and this has led, in modern times, to an undue emphasis upon economics, as opposed to war and propaganda, in the causal interpretation of history.

Apart from the economic power of labour, all other economic power, in its ultimate analysis, consists in being able to decide, by the use of armed force if necessary, who shall be allowed to stand upon a given piece of land and to put things into it and take things from it [Russell 1928, p 95].

I mentioned the fundamental relevance of this illusive reality most recently in our curious discourse on Jeju island, but look how this “derivative power” is presently revealing its true nature – red in tooth and claw...

*Iceland's Banks Face Claims From Depositors Abroad*

October 11, 2008

REYKJAVIK — So far, there is no sign that the British Navy might be steaming toward Iceland — something that happened regularly from the 1950s to the '70s, when Britain and Iceland clashed over fishing rights. But the words being exchanged between London and Reykjavik are the most bellicose since the so-called cod wars.

This time, the dispute centers on money, not fish. Like several other European countries, Britain is trying to recover deposits stranded in Icelandic banks that failed in the last two weeks, as the country's financial system collapsed.

A delegation of British lawyers and regulatory officials was headed to Iceland on Friday....

The British government has frozen the assets of Icelandic banks in Britain, and has threatened to use anti-terrorist legislation to take over assets of other Icelandic companies in Britain. Mr. Brown's comments on the situation have been “disconcerting,” the prime minister of Iceland, Geir H. Haarde, said at a news conference Friday.

I believe I grasp your central thesis, and empathize with your quest for social justice, but I submit you may find your positions untenable upon review of Hayek's *The Mirage of Social Justice* [1976], Darwin's *Origin* [1859], Maynard Smith's *Evolution and Theory of Games* [1982], and (if time permits) Gould's *Structure of Evolutionary Theory* [2002].

For example, recall that I had promised to send along Gould's take on Darwin's “solace” when I found it? Well, I found it!

Viewed in this light, the *Origin's* very few statements about solace become particularly revealing. Darwin had just overturned a system that provided the philosophical basis of human comfort for millennia. What could he supply in return, as we continue to year for solace in this vale of tears? One might be tempted to read the few Darwinian statements about solace as peculiar, exceptional, even “soft” or illogical. But we should note another feature of these statements as well: they yield no ground whatever on the key issue of the organismal struggle. Solace must be found

in other guises; the linchpin of selection as struggle among organisms cannot be compromised.

Darwin offers two sources for solace. First, the struggle, however fierce, usually brings no pain or distress to organisms (humans, with their intrusive consciousness, have introduced a tragic exception into nature). “When we reflect on this struggle, we may console ourselves with the full belief, that the war of nature is not incessant, that no fear is felt, that death is generally prompt, and that the vigorous, the healthy, and the happy survive and multiply.”

Second, this struggle does lead to general improvement, if only as an epiphenomenon, and whatever the cost: “As natural selection works solely by and for the good of each being, all corporeal and mental endowments will tend to progress towards perfection.” Darwin could never compromise his central logic; for even this “softest” of all his statements explicitly asserts that selection can only work on organisms – “for the good of each being.” And why not? The logic of organismal struggle includes both fierce beauty and empirical adequacy – whatever the psychic costs. And, since roses by other names smell just as sweet, then beauty, even as an epiphenomenon, becomes no less a balm for the soul (Gould 2002 pp 136-137).

In other words, if you should – after much *sturm and drang* – decide that the law of superabundance does indeed bring the mirage of social justice into sharp focus (for this law stipulates that more will be born than will survive – a law which, I might add, has been consistent throughout the history of life on earth), we may find some solace in the beauty of it all, as it is only “painful” or “unfair” if we perceive (misinterpret) it as such!

As Tennyson set this great truth in poetry:

Who trusted God was love indeed  
And love Creation's final law  
Tho' Nature, red in tooth and claw  
With ravine, shriek'd against his creed  
Best, Matt

In any case, although this appendix is generally concerned with an Icelandic eruption of a more literal nature in, we're still concerned with the very same theory of value based upon relative insularity. Moreover, I have anecdotal evidence that this theory may be more readily grasped in consideration of physical insularity, rather than economic insularity – but I hope you may recognize that the principle remains equally true in both realms.

And so, now that we've picked up from where we left off, please consider the following note...

*Subject: Iceland*

*Date: Fri, 23 Apr 2010 20:23:21 -0300*

Hey Matt,

I appreciate all the e-mails you have sent me on Iceland.

Keeping with that subject, I thought you would enjoy this article [Earthly Powers 2010].

The timing was perfect really, because the article tabled two arguments which I have been attempting to advance for years – one, quite specific, the other more general.

The specific...

Northern Europe has many hub airports downwind of one of the most volcanic countries in the world, and the emergence of the global aviation industry just happened to coincide with a period of relative inactivity there. Some of Iceland's volcanoes can shoot hundreds of times as much gunk into the atmosphere as Eyjafjallajokull has, and over long periods. There are other volcanoes, notably in the American north-west and Japan, capable of disrupting a lot of airspace around big cities. The fact that the long-distance risks posed by volcanoes are not, for the most part, insurable seems to have led to them being less well studied than other kinds of natural disaster. A wake-up call was needed, and it has been sounded.

And the general:

When people talk about the charms of powerlessness in the face of nature, part of what they are saying is that they don't want to be bothered with facing up to what humans can do, and to what they might have at risk. The business of looking after a planet requires being bothered in advance—and not just about little matters like volcanoes.

One of the several articles I had sent Jordan's way was also particularly directly related to my researches – and thus this thesis. It was an article from the *Washington Post* by Joel Achenbach, published Wednesday, April 21, 2010. The article was titled “Scientists find it difficult to predict volcano behavior”, and the first two passages which struck such cords with me – largely because it is a cord I have been struggling so hard to pluck, were:

1). The eruption in Iceland is not large as volcanoes go, but the cloud over Europe has shed light on the awkward overlay of human commerce and a hot, churning, unpredictable Earth. It raises the question of what governments can do to prepare for – and adapt to – wild-card geological events that not only affect airliners but can also potentially alter the planet's climate for years at a stretch.

2). Now airports are beginning to open again in Britain and the Netherlands, but no one can be entirely sure what will happen next in Iceland. Eyjafjallajokull could potentially incite an eruption of its larger neighbour, Katla, which hasn't erupted since 1918 and might be ready to rumble. In all three historically recorded eruptions of Eyjafjallajokull – in 920, 1612 and 1821 – Katla erupted soon thereafter.



Fig XI – Iceland's Major Volcanoes & Tectonic Plate Boundaries

And yet another thankfully reads:

One of the planet's largest volcanoes is the huge caldera that feeds the hot springs and geysers of Yellowstone.... The caldera last had a full-blown, catastrophic explosion about 640,000 years ago. The last significant eruption, known as the Pitchstone Plateau lava flow, took place 70,000 years ago.

But of course the greatest difference is that I was trying to draw attention to this type of problem before it became a problem (DS §5 ; §6-§9 ; §11-§15) – and that, alas, turns out to be an incredibly difficult thing to do, because human have developed a seemingly insatiable appetite for all things inductive.

Yes, the recent activity in Iceland has greatly assisted me with forwarding my arguments – but how much it will help and how long this assistance lasts remains to be seen. Yes, Iceland has been on my mind quite a bit for the past several years, but of course it has been on my mind quite a bit more over the past week.

In fact, an email from my cousin, Dr Ben Funk, recently yielded a fairly long and fruitful conversation which may help illuminate this problem and bring my unified theory of value based upon relative insularity to life, as I was called upon to put this theory to use in a real-world application, which began with the following request:

*On 09/04/2010 6:55 PM, Ben Funk wrote:*

If you were looking to buy 250 to 1000 acres of land, anywhere in the U.S., to build a little refuge-retreat-hideout with no pretense...where would you do it?

Although this may appear to be a relatively simple request, with a little back-story it is not too difficult to ascertain it is anything but a simple request, and, furthermore, that my dear cousin and great friend is fully aware of the Pandora's box he has willingly opened, as he holds a Master's degree in finance, a PhD in economics, and is one of three founding partners, the managing director, and head of research for one of the most successful hedgefunds on Earth. Most may reasonably presume that he would neither need nor even want my assistance with such important matters. But they say one of the truest signs of a great manager and leader is the ability to delegate and rely upon intelligent people – especially upon those whom have honed and developed highly specialized skills – and I will suggest that I may be uniquely and singularly well-equipped to answer my cousin's query – and he's certainly in a good position to recognize this, as he generously sponsored and helped facilitate my research expeditions to Mustique, where I had formulated my theory of value based upon relative insularity. A

theory which he as now – in more words or less – asking me to utilize to assist him with this analysis and critical decision. In short, he may have rightly suspected that I was unusually well-positioned to develop a winning strategy.

Thus my initial reply went as follows:

*Subject: Refuge-Retreat-Hideout*

*Date: Fri, 09 Apr 2010 20:04:33 -0300*

As you well know, this is an arena in which I have devoted an extraordinary amount of time and energy.

But to make a very long and complicated answer very simple, the best choices are (by a rather wide margin, in descending order):

1. Montana
2. South Dakota
3. New Hampshire

And possibly Alaska or the big island of Hawaii (though I believe both may be too far away for you to consider). If one or more of these locales appeals to you, I would be happy elaborate. Also, there's one more very interesting strategy which I've been thinking about lately: Turner [2008] has tied up his ranch properties (2 million acres) in a rather iron-clad trust which will protect these lands into the foreseeable future – acquiring a 250-1000 acre parcel bordering one of his ranches could yield an extraordinary value – you could effectively enhance the insularity (and value) of your property a hundred-fold.

South Dakota and New Hampshire have added tax-haven benefits – if you should ever find yourself paying U.S. income taxes again, both states have 0% state income tax rates. And although my buy recommendation for New Hampshire isn't nearly as strong as my recommendations for Montana and South Dakota, such a property could be had within a three or four hour drive of Boston (which is both a blessing and a curse)...

And now that you know how this story began, although you may infer by the recent time-stamp below that this remains an open and ongoing dialogue, I'll quickly reveal just how it has ended to-date; the remainder of this short discourse on relative insularity in the wild wild West unwinds in reverse chronological order...

*Subject: Refuge-Retreat-Hideout*

*Date: Sat, 24 Apr 2010 02:08:13 -0300*

Most importantly, here's a handy map of the Flathead Valley – although the ideal spot may or may not be on Flathead Lake, it is almost certainly within Flathead Valley...

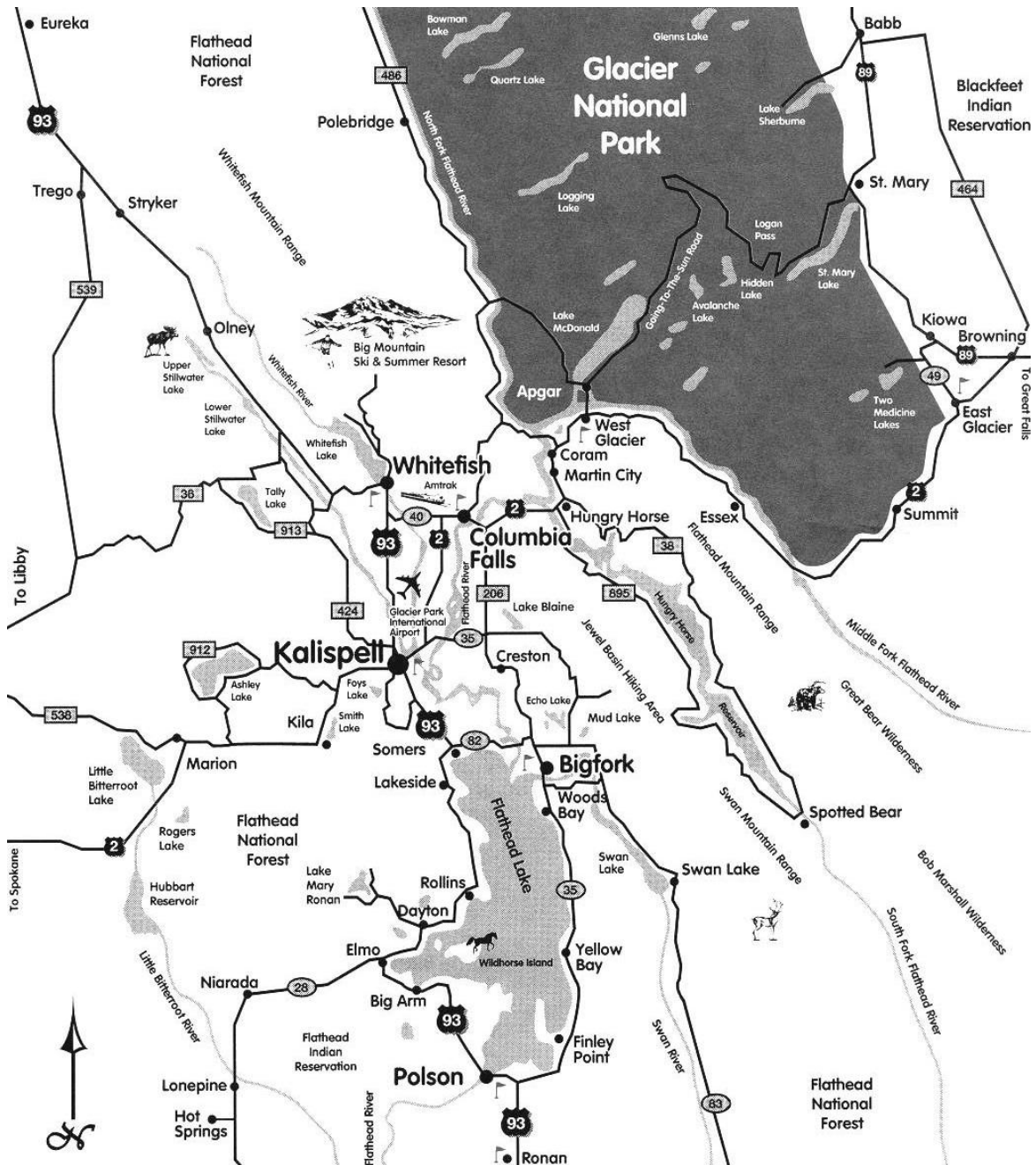


Fig. XII – Map of Flathead Valley, Montana

Logistically and strategically speaking, by simply looking down upon this map, the area between Whitefish and Glacier National Park (to the Northeast of Whitefish) looks especially appealing – as previously noted, there are Amtrak stations at both ends of this area – both in Whitefish and West Glacier, and Whitefish is the services capital of this area.

It seems the best real estate on Flathead Lake would be on the north and northeast shores, thereby offering southern and southwestern exposures to facilitate the best lake views, natural lighting, and passive solar heating in the spring, winter, and fall.

Although it's not detailed on this map, there's a massive chunk of national Forest around Woods Bay (just below

Big Fork, on the northeast shore), and thus, if it were possible to procure land on either side, it could prove well-insulated. The east shore also happens to be the dominant cherry growing region.

Some good stats on Woods Bay are here: <http://www.city-data.com/housing/houses-Woods-Bay-Montana.html>  
And perhaps the most encouraging chart you may find is good evidence of a fairly sharp bubble correction:

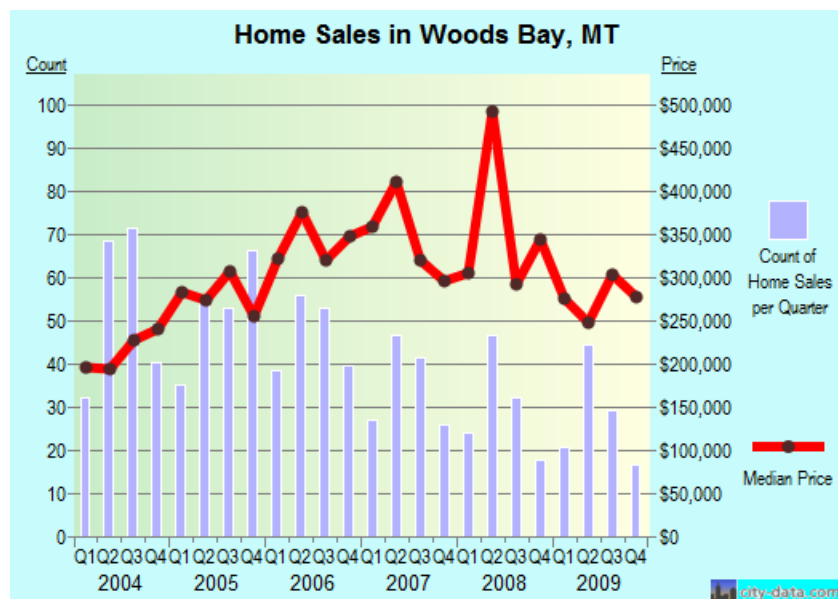


Fig. XIII – Recent Home Sales in Woods Bay, Montana

Subject: *Refuge-Retreat-Hideout*

Date: *Fri, 23 Apr 2010 16:25:38 -0300*

From: *Matt Funk*

Excellent question.

First and foremost, I would want to get a much better sense of population density along the lakefront, find out how much of a premium lakefront footage is selling for (and what, if any, the tax premium may be), etc.

But setting these important considerations aside, the ultimate choice really comes down to a matter of lifestyle preferences and strategy objectives: For me, the ideal refuge/retreat/hideout must offer significant means of sustenance – hopefully, of course, merely as a means of recreation – but, the last resort, as a means of survival.

After settling on the supreme insulative properties of NW Montana, the things that attracts me most to proximity to Glacier National Park are 1), it's 1.2 million acres, 2) Fishing is allowed in the park without permit or license, 3) Horseback riding (even your own horses) is permitted throughout the park, 4) the park is unique that it borders a national park in Canada, and thus a horseback crossing into Canada could probably be relatively easy to achieve in the event of emergency, 5) new federal regulations now make it legal to lawfully carry handguns into the park (be that for protection from grizzly bears or grizzly individuals), and 6) three Amtrak stations border the park in very near proximity to one another – if you like the idea of having daily access to day-trips to Seattle or Portland or once-daily train service to Chicago (a 24 hour trek), one of these stops could easily be within minutes of your ranch. Therefore, initial thoughts were that even the acquisition of a relatively small parcel bordering the park could effectively give you 1.2 million very lightly shared acres of fishing and gathering grounds (although no hunting is permitted in the park, if you had a large enough parcel bordering the park, the hunting would be extraordinary). Thus, having said that, two considerations may be A) Do you like and/or are you interested in horses? B) Which appeals to you most, fly-fishing or fishing on a lake? and C) Which appeals to you most, a traditional ranch – with pasture and perhaps a few bison, chickens, cattle, or all of the above, or would you prefer a small scale orchard?



As for horses, to me, they represent very sound survival strategy and they're excellent for childhood development. As for fishing, both types appeal to me for different reasons: Fly-fishing is beautiful, but difficult, and if you're hungry, difficult isn't much fun. Fishing from a boat on a lake is more social and more like shooting fish in a barrel – it's easier. But of course you won't have 1.2 million acres in your back yard and there will definitely be a lot more people – which is both good and bad. One thing that I've been meaning to relate is that, going back to our Neandertal days, packs of 12-15 people tended to survive, while small groups tended to perish. Ideally, you'd put together a group of four, five, or six families, buy a 10 or 20 thousand acre ranch, build a half-dozen haciendas, and form a refuge/retreat/hideout cooperative of sorts. Alas, this is fairly complicated (and, alas, I don't have the digits to buy in at this juncture!) – but the right lake-front community could yield a fairly cooperative bunch. Also, the orchard potential is very appealing to me: You're able to obtain much with little acreage when it comes to fruit, nuts, and honey. Also, the prospect of milder winters could be good. And although sailing is a plus for me, I don't think you're thus inclined. But do keep in mind, however, that Flathead county is becoming a retirement mecca of sorts, thus it would be good to look carefully at lakefront demographics.

Either way, from a distance, they both seem to be good strategies to me. Glacier International Airport is merely a ten or twenty minute drive from either. I imagine that exploring the park, the land around it, and spending some time on and around the lake may lead you in one way or the other, but I think all of the above represent some important considerations as well.

Much more to follow...

*On 23/04/2010 2:33 PM, Ben Funk wrote:*

If you had to choose lakefront (and far less land) versus a lot more land (and no lakefront), how would you opt. River through land may be the compromise...?

*Subject: Refuge-Retreat-Hideout*

*Sent: 23 April 2010 18:25*

As I dig into this a bit more, I'm not so sure about Flathead lake – it definitely a magnificent lake, but it may be a nice local “water feature” of sorts, rather than offering shoreline for an ideal cherry orchard refuge/retreat/hideout. By NW MT standards, it's already fairly commercialized.

However, I am fairly certain that I've honed it down to an inter-connected, three-county area – in descending order of preference: 1) Flathead, 2) Teton, and 3) Pondera counties (see attached for great county-to-county comparisons). Flathead certainly has the most amenities and services (by NW MT standards, that is) – in many ways it's the cream of the crop in NW MT, but Teton and Pondera offer far greater ranch/acreage/agricultural potential – you'd probably get 10 times more land for the same \$ in these two counties, and the land you'd get would be far more fertile and productive. Note from the illustrative maps on the attached that Pondera county is a rather distant third choice, however. Teton features an incredibly low population density of 3/sq. mile. As noted below, Letterman's ranch is in Teton Co., and some reports indicate it is 2,700 acres, others report 10,000. In either case, the average farm is over 500 acres.

But I imagine many lingering questions along these lines would simply answer themselves upon exploration.

Much more to follow...

*Subject: Refuge-Retreat-Hideout*

*Date: Fri, 23 Apr 2010 06:50:53 -0300*

*From: Matt Funk*

Wow, I may be honing in on something interesting here: Flathead Lake. The scales are so massive up there, the size of this thing hadn't really registered until now (about twice the size of Lake Gogebic)...

Flathead is about 30 miles south of Whitefish, within the same county (Flathead County). In any case...

Flathead Lake is the largest natural freshwater lake in the western part of the contiguous United States. With a surface area of about 191.5 sq mi (496 km<sup>2</sup>), or 197 sq mi (510 km<sup>2</sup>), it is slightly larger than that of Lake Tahoe. Its maximum depth is 370.7 ft (113.0 m). The lake was raised 10 ft (3.0 m) by Kerr Dam. It is one of the cleanest in the populated world for its size and type.

Located in the northwest corner of the state of Montana, 7 miles (11 km) south of Kalispell, it is approximately 30 miles (50 km) long and 16 miles (25 km) wide, covering 191.5 square miles (495.9 km<sup>2</sup>), making it approximate in size to Minnesota's Mille Lacs Lake and half the area of San Francisco Bay (main bay). Flathead Lake is 30 miles (48 km) southwest of Glacier National Park and is flanked by two scenic highways, which wind along its curving shoreline. On the west side is U.S. Route 93, and on the east, is Route 35.

The lake is bordered on its eastern shore by the Mission Mountains and on the west by the Salish Mountains. The Flathead valley was formed by the glacial damming of the Flathead River and sustains a remarkably mild climate for a region located this far north and inland; the Pacific Ocean is almost 400 miles to the west. The mild climate allows for cherry orchards on the east shore and vineyards for wine production on the west shore. There are also apple, pear and plum orchards around the lake as well as vegetable, hay, honey, nursery tree, Christmas tree, sod/turf and wheat production bordering or near the lake.

Much more to follow...

*On 21/04/2010 6:55 PM, Matt Funk wrote:*

Wow, must be good to finally be home!

Montana sounds exciting! If you're snaking back via Chicago, you may want to really consider Amtrak's Empire Builder for the return – check out the Wikipedia on it – it's about a 24 hour tour of the Rockies, American West, and great plains – the daily departure is timed so the best observation car viewing is done during the daytime. Another great feature which is beginning to become clear to me is the Empire Builder connection to Seattle (a day trip from Whitefish, an overnight trip return) – if you ever ended up working from the U.S., Seattle could be an incredible option – check out Wikipedia's on Washington State and Seattle when you have time. No state income or corporate taxes – Seattle is the least “progressively” taxed city in the U.S. – no coincidence that Gates, Ballmer, *et. al.* reside in Seattle. Seattle also boasts the highest percentage of college graduates in the U.S. I know it's not exactly a finance center, but it does seem to offer a good climate for one (Mt. Ranier is, however, another nontrivial matter to consider: Hoblitt, R, *et. al.*, 1998, *Volcano Hazards from Mount Rainier, Washington*, USGS Open-File Report 98-428).

More on NW Montana to follow – let me know if there are any specifics you'd like me to research.

*On 21/04/2010 5:57 PM, Ben Funk wrote:*

Back in London. The dates look promising. We're angling for the 2<sup>nd</sup> to 9<sup>th</sup> in Montana...snaking back the weekend of the tenth via Chicago, or starting in Chicago and doing Montana the week after. Naturally, Will would be a good addition in either case [Thank you, Ben, that would be incredible for father and son, alike!].

Am going to do a little digging on availability. My initial instinct is that I would rather be out there over the 4<sup>th</sup>, but so too would many others so property options may be reduced.

*Subject: Refuge-Retreat-Hideout*  
*Sent:Wed Apr 21 21:08:38 2010*

Holy Homecoming, Human, I'm sure you're exhausted...Give a call when you've rested up and are back on track.  
Great to hear you've made it back to Europe!

*On 21/04/2010 3:57 AM, Ben Funk wrote:*

Just touched down in Amsterdam...grinding my way back...give u a call later.

*Subject: Refuge-Retreat-Hideout*  
*Sent:Wed Apr 21 04:26:01 2010*

The 4<sup>th</sup> sounds Awesome – Marcy is off work the first 19 days of July with the exceptions of July 3 and 4, but if we'd like to put a Montana trip together, she could switch those days out with a co-worker (and thus be free July 1-19). We need to be back in Chicago for Joe Ryan's wedding on 10 July and I re-unite with William for three weeks beginning July 11 – otherwise, the first 9 days of July could be totally open.

I'm still digging deep into this region and I'll have much to report in short order – but if you guys are interested in putting a trip together at that time, I'm fairly sure we could make it work and equally optimistic that it could yield a fantastic time and produce a few good prospective refuges/retreats/hideouts to explore!

Did you make it back today? Hope so...Matt

*On 20/04/2010 4:15 PM, Ben Funk wrote:*

4th of July?

*Subject: Refuge-Retreat-Hideout*  
*Sent:Tue Apr 20 20:09:39 2010*

I think I've found it – the ideal refuge/retreat/hideout may be within the triangle connecting Whitefish, Montana, the western boundary of the 1.2 million acre Glacier National Park (see map, attached), and the Glacier Park International Airport (see flight-map below, also check attached Amtrak schedule for the incredible connectivity to Seattle, Portland, and Chicago – a day-trip to Seattle and Portland, overnight return. Also, from Seattle regular ferry transport crosses the channel to Victoria, B.C., located on Vancouver Island – the sunniest town in Canada).

Yet this region is one of the most incredibly insulated, well-protected, abundant – fish (fishing permitted within Glacier National Park, no license or permit required), game (see “Mammals” and “Birds”, attached, restaurants, & ags), and lightly populated regions in the United States – less than 5 people per square mile.

We should consider an exploratory field expedition in the near-future – mid-July, September, or perhaps in conjunction with your New Year's trip to Aspen – although it's not well-known, Whitefish Mountain is actually a fairly large ski resort – yet another interesting piece to this value-proposition puzzle.

In any case, hope you're safe, sound, and re-united with Z and A back in the UK.

Much more to follow, but here's a preview in the meantime...Matt



Fig. XIV – Downtown Whitefish, Montana, pop. 5,000



Fig. XV – Glacier Park International Airport Route Map

*Subject: Refuge-Retreat-Hideout*

*Date: Sun, 18 Apr 2010 22:43:09 -0300*

Sorry to hear, Human, hope you'll be able to get out tomorrow – we're thinking of you guys here on PEI – and I'll dig deeper into NW Montana in the meantime...Matt

*On 18/04/2010 10:03 PM, Ben Funk wrote:*

Grounded and can't get out of NY, trapped like a rat...hoping to get out tomorrow...grrrr  
NW Montana seems the right choice...we should dig deeper.

Subject: *Refuge-Retreat-Hideout*  
Sent: Sun Apr 18 23:47:52 2010  
From: Matt Funk

Did you make it back to the UK today? Hope so – drop me a line when you have time.

It'll be interesting to see how this plays out – it's sadly humorous to see politicians pushing to get airspace reopened when the prudent thing to be working on right now is preparing for Katla to erupt – Katla is very active, far more powerful than Eyjafjallajökull, erupts every 40-80 years (but has not erupted since 1918), and, even more menacing is the fact that the last three times Eyjafjallajökull erupted it triggered eruptions of Katla (by the way, be sure to carefully consider my HVAC 1-micron filter recommendations).

Eyjafjallajökull's activity also helps further illustrate a point I was trying to make last November regarding the Yellowstone Caldera...

Subject: *On the Problem of Supervolcanoes*  
Date: Sat, 14 Nov 2009 18:37:42 -0400

By the way, I think the Yellowstone Caldera is probably one of the greatest cataclysmic risk factors in the US - - and the point I was trying to illustrate with this map is why I would be short Wyoming and long Northern Montana - - the Missoula area would be one of the few great sanctuaries in the Western US. It also seems that an eruption would send most survivors in the red zone fleeing to the East, which would, of course, cause all sorts of madness. Just something to think about if you're thinking about a western ranch...

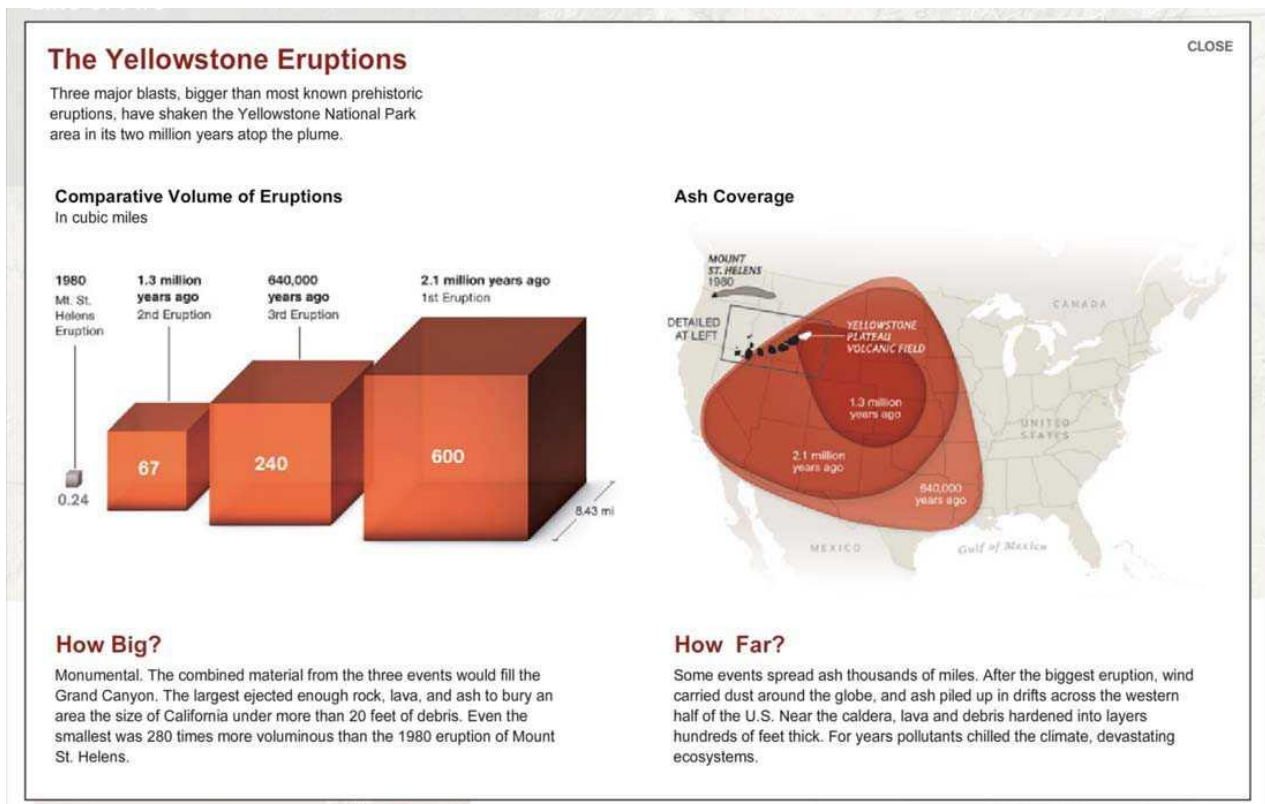


Fig. XVI – *The Yellowstone Caldera*

In any case, last week you asked about my top pick for a refuge-retreat-hideout in the US and I noted 1) Montana, 2) South Dakota, 3) and New Hampshire. There are many factors involved with those three picks (such as the drying up of the Southwest, instability along the U.S. Mexican border, the politico-economic implosion of California,

Hurricane risks in the Gulf of Mexico, political corruption/taxation/Second amendment problems in states like New York, Illinois, Michigan, and Washington D.C., and Eastern liberalism/population density problems which make most of New England uninhabitable), but one of the most central factors is Yellowstone, which is about 50 million years over-due for an eruption. And that is, more specifically, why I would especially favour the Northwest corner of Montana (from Missoula north to the boundaries of Glacier National Park. This factor also makes Alaska and the big island of Hawaii appealing, but then again, there are issues there (Hawaii in particular) as well. Again, Montana remains my number one pick – and the more I think about it, the more I like Montana and New Hampshire and the less I like South Dakota.

But in any case, Eyjafjallajökull helps illustrate just how steady the jet-stream is – flights between the U.S. and Iceland have remained uninterrupted! The ash blows steadily to the south east, just as it has on a far, far more grand scale from Yellowstone – and, now that we've seen how a little bit of dust has shaken the EU to the very core, just try to imagine the politico-economic disruption the Yellowstone Caldera *will*, alas, eventually wreak upon the U.S. (and Canada for that matter was well – remember Canada is dependent upon the U.S. for military protection [DS §11]).

Most importantly, however, I want to emphasize that I don't want to cause an undue alarm, concern, or anxiety about these phenomena, I merely want to emphasize that you may select sound strategy with these risks factors in mind and consider what preparations may be feasible and prudent to consider (such as HVAC filters and/or a ranch retreat – and

then try not to think about it too much!). But in any case, we're thinking of you guys over here, let us know if there's anything we can do to help.

Best...Matt

*Subject: The End*

*Date: Thu, 15 Apr 2010 13:55:07*

Possibly... but hopefully not. And the good news is as follows:

- 1). Depending upon the duration of the eruption – which, contrary to mass media reports, is impossible to predict (see:<http://www.thestar.com/worldwide/article/795721-volcano-eruptions-in-iceland-could-last-for-years?bn=1>) – ash may not rain down on the UK.
- 2). If it does, we're able to accommodate your crew here on PEI.
- 3). This sort of thing is actually a great wake up call – for the past several years, I've found it incredibly difficult for many theorists to take these scenarios seriously, this helps change perspectives. Looking at a real-time flight map of Europe this morning – with not a single plane over the UK – was a powerful image. Hopefully many will learn a few lessons here.
- 4). This may effectively put a dent into global warming – of course it is also possible that – in conjunction with a Katla eruption – it could bring about a mini ice age.
- 5). You've already begun to think about rural property in the U.S. – this illustrates how *vulnerable* islands are relative to continents. If you want help on the search front, it would be fun to do a little research for you.
- 6). If you're not already making cake taking directional bets against the Euro, Sterling, British Airways, Virgin, Ryan Air, *etc.* – and going long gold, USD/U.S. Treasuries, there may be much upside to various trades along those lines. Read an article a few days ago regarding your commodities fund and it sounded like great strategy – the Aqs, Gold, and commodities mix looked super-impressive.
- 7). This could help you dodge business travel you'd rather not have to do.

On 15/04/2010 11:08 AM, Ben Funk wrote:

The end must be near...

From: Sandy Row Travel

To: Ben Funk

Sent: Thu Apr 15 14:50:28 2010

Subject: Volcanic Ash over the UK. Update from National Air Traffic Services (UK)

The closure of UK airspace is set to last longer than at first anticipated.

Flights had been suspended across the country, including at Stansted Airport, Heathrow and Gatwick, between noon and 6pm, due to a volcanic cloud spreading from Iceland following an eruption earlier today

However, after further review, a NATS spokesman has confirmed that it is possible that flights may not get off the ground until Thursday night or even Friday day.

National Air Traffic Services (UK) continues to monitor the situation with the Met Office and is working closely with airlines both here in the UK and in adjoining countries, The situation will be reviewed on a regular basis to understand what further action will be required. But it is very unlikely that the situation over England will improve in the foreseeable future.

## SECOND EDITION UPDATE:

Although I not still quite as keen on the Flathead Valley (in part due to land-costs and in part due to increasing wildfire risks), I am actively attempting to employ my theory of value to develop a “ranch-retreat-hideout” on Michigan's upper peninsula:

*Subject: Mistakes Were Made (but not by me)*

*Date: Wed, 26 May 2010 06:04:27 -0300*

*To: Daniel Loeb*

Dear Daniel,

Thanks for the recommendations – two down, three more to go. The Orwell & Lao Tzu inscriptions in *Mistakes Were Made* say so much, wish someone at the SEC would read *The Art of Short Selling*.

Otherwise, I'm pretty sure this isn't your cup of tea, but if you're interested in a northern Michigan wilderness hedge, I thought I'd pass along the proposal outlined below. If you'd like to hear more or head over for a visit sometime, let me know.

But in any case, thanks again for great reading tips!

*Subject: Ottawa Fish & Game Club*

*Date: Wed, 26 May 2010 05:17:25 -0300*

*To: Ted Nugent*

Greetings Ted,

After reading your recent interview in *America's 1<sup>st</sup> Freedom*, it occurred to me that you may be interested in a fish & game club I'm organizing along the shores of Lake Gogebic – legend has it that you have spent time bear hunting in the area, and thus, if you're familiar with the lake, you may know of a rather extraordinary piece of property that's been in our family for three generations (see the *Lake Gogebic 2009* gallery at [funkisland.org](http://funkisland.org)) – a mile of shoreline, 180 acres, the only marina, and a grand lodge built in 1929 by timber baron William Boniface (whom Edna Ferber fictionalized in *Come and Get It*), and my plan is to form a “land club” (see below), limited to 24 members, to enjoy this special place and begin to acquire additional tracks of forest lands. But, as you know, this property is already incredibly insular – with the

largest freshwater lake on the upper peninsula insulating one side of the property, and the 1.2 million acre Ottawa National Forest on the other.

We're still quite flexible insofar as the club structure is concerned, but I do intend to model this venture after the Huron Mountain Club – and I am focused upon recruiting members with common values (<http://mpira.ub.uni-muenchen.de/19371/> offers a good snapshot of who I am and what I believe). You may find my LinkedIn profile page here: <http://uk.linkedin.com/in/funkisland>. At this early stage three individuals – my cousin Ben Funk, brother Dan, and myself are willing to commit.

If you would like more details, I'd be happy to elaborate, and of course if you'd like to come up for some fishing or hunting, you'd be welcome anytime.

Sincerely, Matt Funk

NRA Member No. 159976517

*Subject: Ottawa Fish & Game Club*

*Date: Wed, 26 May 2010 03:28:18 -0300*

Hey Dad,

If you're interested in that book I mentioned tonight, it's called *Enviro-Capitalists: Doing Good While Doing Well*.

In short, it espouses the principles developed by Aldo Leopold and offers a dozen or so excellent case studies highlighting the manner in which these principles have been put to use to simultaneously 1) protect natural environment through private ownership, 2) generate positive cash-flow streams from that protected habitat (through hunting, fishing, and member-only access to the land), and 3) create long-term economic value. Many of the case studies offer guidance for the club I have in mind, but I'll merely quote two passages which summarize my plan rather well:

In the 1930s, Aldo Leopold became the American conservation movement's "voice in the wilderness" because he was one of the few who understood the importance of environmental entrepreneurship. Unlike so many in the movement who were putting all their eggs in the public stewardship basket, Leopold began espousing the need to balance wildlife policy by enlisting the services of the private landowner. He [rightly] predicted that "conservation will ultimately boil down to rewarding the private landowner who conserves the public interest (page 177)....

As virgin forests became scarcer in the 1880s, recreationists from the industrialized centers of the Upper Midwest and Northeast were discovering the beauty of the Huron Mountain region, located near the mouth of the Pine River on Lake Superior side of the Upper Peninsula....

The lure of the countryside and importance of preserving its recreational potential was not overlooked by one entrepreneur in the region, Horatio Seymour Jr. The Marquette-based manager of the Michigan Land & Iron Co. came up with the idea of forming a 100-member hunting and fishing land club to purchase land in the Huron Mountain area. In 1887, he approached his friend John M. Longyear, a prosperous land dealer, with the idea. Longyear initially rejected Seymour's idea, believing that the area was too remote and rugged to draw tourists. he did allow, however, that he would join Seymour in the venture if Seymour could interest other prominent people.

When Seymour approached Longyear again in 1889, he had a much stronger case for a land club in the Huron Mountain area. Seymour had found prominent individuals from both Detroit and Marquette willing to become club members. In addition, hunting and fishing camps and land clubs were springing up "like wildflowers" along the Lake Superior coast near Sault Ste. Marie, and they were spreading west toward the Huron area....



The club, initially called the Huron Mountain Shooting and Fishing Club and later renamed the Huron Mountain Club, was born on 29 November 1897. A twelve-member board was established to oversee club business, and Longyear was appointed the club's first president. Capital for day-to-day operations, the building of a clubhouse, and land acquisition was generated from the sale of member shares and annual dues, priced initially at \$100 and \$25, respectively. The club began with a fifty-member limit, \$5,000 capital, and 7,000 acres acquired through purchase and lease.

The club's initial emphasis was on enhancing hunting and fishing opportunities and on improving facilities for hunters and anglers. Additional staff was hired, and a workshop, bathhouses, and boathouses were built on the property. Club employees constructed hiking trails and even built several hatcheries to ensure that its lakes and streams had ample supplies of fish. To create a community atmosphere and a stronger incentive to stay with the club through the years, the board ruled that club members could build cabins on the property, leasing sites from the club for \$1 per year....

In 1937, the club... enlisted the services of Aldo Leopold, the nationally renowned conservationist, to assess the natural and scientific values of the club's holdings and recommend ways to protect them....

Leopold encouraged the club to continue its land acquisition program....

Since Leopold's Huron Mountain 1938 assessment, the club has continued to follow the policies he recommended (pp 32-33).

Today there are still just 50 members in the Huron Mountain Club, but they have heeded Leopold's advice well and now own over 30,000 acres of virgin forest (see the attached for more details).

And this is exactly the plan I have in mind for the Ottawa Fish & Game Club!

And, finally, regarding some recent and significant news:

*Subject: Nontrivial News*

*Date: Thu, 27 May 2010 09:52:56 +0100*

*From: Ben Funk*

Looking forward to chatting with you about multiple items, and Gogebic in particular....

*Subject: Nontrivial News*

*From: Matt Funk*

*Sent: 27 May 2010 09:48*

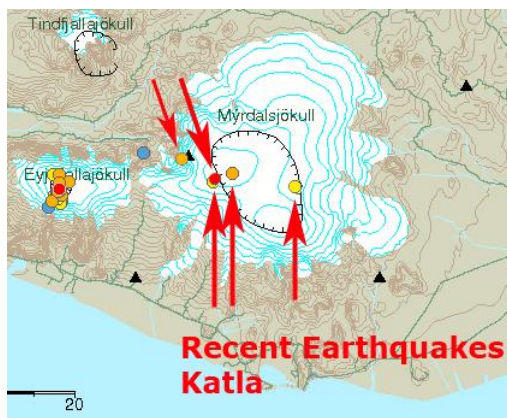


Fig. XVII – *Nontrivial News*

## APPENDIX IV – ON SHARING GOOD BOOKS & REVOLUTIONARY IDEAS

*Subject: Good Books?*

*Date: Sat, 24 Apr 2010 21:39:21 -0300*

*To: Daniel Loeb*

Amanda Ripley's *The Unthinkable: Who Survives when Disaster Strikes – and Why* is another great read which you may find of interest – I quoted an illustrative excerpt in the email-chain copied below.

Best, Matt

*Subject: Staggering scope...*

*Date: Sun, 28 Feb 2010 20:45:13 -0700*

*From: Jeffrey Alan Lockwood*

*To: Matt Funk*

And you as well—your trajectory will be most fascinating to follow...

*Subject: Staggering scope...*

*Date: Sunday, February 28, 2010 8:37 PM*

Thanks Jeff! Drop me a line from time to time – I'd like to stay in touch!

Cheers! Matt

*On 28/02/2010 11:16 PM, Jeffrey Alan Lockwood wrote:*

Best of luck with looking beyond the lightbulb!

*Subject: Staggering scope...*

*Sent: Sunday, February 28, 2010 7:25 PM*

Hi Jeff,

Thanks so much for your reply and giving it all some thought – yes, I'm beginning to realize that I'm lucky to have found anybody anywhere who's willing to entertain this unruly beast!

It's rather funny, too, because I had set out many years ago to study economics so that I would be better positioned to make ecological arguments within the economic arena (the only venue which seemed – and still seems – to be the one that people and politicians really care about), but in an ironic twist, I find myself arguing for quite the opposite of what I had intended to be arguing for at this juncture!

And though it does seem at times that, given the scope and ambition of my PhD endeavour, that I've bitten off more than I'll be able to chew, in the end, I know it's the only way, because no matter how I might try to focus on one aspect or another: ecology, economics, finance, cosmology, astrophysics, *etc.*, I'd end up with a fatal case of tunnel vision – this was, perhaps the feature presentation I had attempted to forward in *On the Truly Noncooperative Game of Life on Earth: In Search of the Unity of Nature & Evolutionary Stable Strategy* – <http://mpira.ub.uni-muenchen.de/17280/>

And, to this point, until our paths may cross west of the 100<sup>th</sup> meridian some day [*cf* APPENDIX III], I'll leave you with this parting analogy (from Amanda Ripley's *The Unthinkable: Who Survives when Disaster Strikes – and Why*) as my sincere thanks to you and Professor Jackson for your time and consideration:

On the evening of December 29<sup>th</sup>, 1972, an Eastern Air Lines jet coming from New York City began its final

approach to Miami International Airport. The flight had been uneventful, and the weather in Miami was clear, with unrestricted visibility. The landing should have been perfect. The plane carried 163 passengers, most of them returning from or leaving for holidays vacations.

But when the pilots tried to lower the landing gear, they didn't get a green light indicating that the gear was fully down. At 11:34 PM, the captain, who had more than three decades of experience, called the Miami control tower to explain that he would have to circle while they worked on getting the green light. The plane climbed to two thousand feet and began a wide U-turn over the airport.

For the next eight minutes, the flight crew tried to figure out what was wrong. Why wouldn't the light go on? The captain ordered two different people to try to visually confirm that the gear was down, but they couldn't see anything in the dark. The first officer pulled out the nose-gear light to inspect it, but had problems putting it back in. All the while, the captain offered advice and issued orders. The entire cockpit crew was focused on getting that green light on.

At 11:40, a half-second alarm tone went off in the cockpit, indicating that the plane had deviated from its altitude. The transcript from the cockpit voice recorder shows that no one said anything about the alarm. It was as if they hadn't heard it at all. The crew continued to speculate about possible reasons for the light problem. But then, two minutes later, the first officer noted another problem.

“We did something to the altitude,” he said.

“What?” the captain said.

The first officer backtracked: “We're still at 2,000, right?”

Then the captain said, “Hey, what's happening here?”

Another warning sound began to beep, more insistently this time.

Two seconds later, the plane crashed into the Everglades, nineteen miles from the airport.

Investigators would find that the plane had been in fine working order – except for the lightbulb in the landing-gear indicator, which had burned out. While the flight crew worried about the light, the plane had dipped toward the earth. When it sliced into the soggy marshland, it disintegrated on impact. The wreckage was scattered over an area 1,600 feet long and 330 feet wide. A total of 101 people died.

The manifold and inter-connected problems I introduced and framed within a game-theoretical development and, theoretically solved in *On the Truly Noncooperative Game of Life on Earth* [DS §7] suggest that, when it comes to issues such as Global Warming, Albert Gore, Sir Richard Branson, and Leonardo DeCaprio are all frozen, transfixed upon a burned-out lightbulb – when it comes to conservation biology, E.O. Wilson stares at a burned-out lightbulb – when it comes to just about everything, David Suzuki stares at a burned-out lightbulb, and last, but certainly not least, when it comes to “bailing-out” the economy, President Barack Obama, the Fed, SEC, EU, and Universities around the globe, tunnel vision is so strong and so myopic that many – if not most – see almost nothing that is happening anywhere else on Earth (and certainly nowhere else in the universe), perpetually bewitched by a burned-out light bulb.

And thus I see no other way than to explain it all in a PhD dissertation of staggering scope and intergalactic proportions!

Thanks again, I appreciate your time.

*On 28/02/2010 8:02 PM, Jeffrey Alan Lockwood wrote:*

Hi Matt,

Given your interests, my inclinations, and the nature of the Program in Ecology, I think that it is best for you to pursue the program at the University of Malta. As intriguing as your project appears, it is a bit too far afield for me to attempt to sell to my fellow ecologists (and its staggering scope may be rather beyond anything approximating a conventional dissertation).

Best of luck in your endeavors – and perhaps our paths will cross in this region one day!

*Subject: PiE PhD?*

*Sent: Saturday, February 27, 2010 3:13 PM*

Greetings Jeff,

I was just following up to see if there was any chance the University of Wyoming might have any interest in me as a PhD candidate.

I realize you must be busy – and I'm not in any particular hurry, but my discussions with the University of Malta have been progressing very nicely, and I am headed there for meetings in the first week of April and it does indeed seem to be the right fit, but I just thought I'd follow up to let you know my status and see if you've had time to consider my curious case.

In any case, I'm quite sure that, sooner or later – in one way or another – I'll end up in Wyoming, Montana [see APPENDIX III], or South Dakota [ibid], so, until then, I'll look forward to the day when our paths may cross!

*Subject: PiE PhD*

*Date: Fri, 5 Feb 2010 09:38:28 -0700*

Hi Matt,

Your background is most intriguing. I read through your paper *On the Truly Noncooperative Game of Life on Earth...* There are some engaging assertions and allusions that would be interesting to explicate in terms of a formal argument. Although this might prove to be a staggering project in total, perhaps some of the elements would constitute manageable units for rigorous analysis. But even should we find some rich components on which to focus in a doctoral program, I am not entirely optimistic that this sort of venture would meet with the approval of the Program in Ecology (PiE). The Program was conceived as an ecological science venture, such that students engage in more conventional lines of research. My background in insect ecology and my participation in co-teaching a course in the history and philosophy of ecology has kept me connected to PiE. However, I no longer maintain an active, scientific research program (I have a joint appointment in Philosophy and the MFA program in creative writing, so I have no laboratory, grants, etc.). This is not to say that I'd be unwilling to consider working with on a PhD in ecology with further discussion. Rather, I believe that the dissertation would likely be too far afield (pardon the pun) for the intent and direction of PiE.

However, I don't want to merely speculate on such matters, so I am forwarding your inquiry and my response to the program director, Steve Jackson (who co-teaches the history/philosophy course with me). He is an extraordinarily open-minded scholar, but he is also keenly attuned to what is conceptually/academically possible within the framework and personalities of PiE. Let's get his thoughts on whether a non-research (in the conventional, scientific sense) dissertation would be viable.

*Subject: Good Books?*

*Date: Sat, 24 Apr 2010 18:08:33 -0400*

*From: Daniel Loeb*

All good.

Read *Talent is Over Rated* and *Mistakes Were Made but Not by Me*.

*Subject: Good Books?*

*Sent: Sat Apr 24 18:06:49 2010*

*To: Daniel Loeb*

Read any of these titles? Recommend?

Staley's *The Art of Short Selling*, Lefevre's *Reminiscences of a Stock Operator*, Greenblatt's *You Can Be a Stock Market Genius*?

*Subject: Your Order with Amazon.com*  
*Date: Sat, 24 Apr 2010 22:51:56 +0000 (UTC)*  
*From: Amazon.com*  
*To: Matt Funk*

Thanks for your order, Matt!  
Order Grand Total: \$138.92  
Order #: 102-1925188-7005855  
Subtotal of Items: \$108.55  
Shipping & Handling: \$24.94  
Import Fees Deposit \$5.43  
Total for this Order: \$138.92  
Delivery estimate: May 6, 2010 - May 18, 2010  
Shipping estimate for these items: April 26, 2010

*Mistakes Were Made (But Not by Me): Why We Justify Foolish Beliefs, Bad Decisions, and Hurtful Acts*  
Carol Tavris; Paperback; \$10.20

*You Can Be a Stock Market Genius: Uncover the Secret Hiding Places of Stock Market Profits*  
Joel Greenblatt; Paperback; \$10.20

*Talent Is Overrated: What Really Separates World-Class Performers from Everybody Else*  
Geoff Colvin; Hardcover; \$17.13

*Reminiscences of a Stock Operator, Annotated Edition*  
Edwin Lefèvre; Hardcover; \$23.07

*The Art of Short Selling*  
Marketplace Books; Hardcover; \$47.95

## BIBLIOGRAPHY

In addition to the works quoted in [this BIBLIOGRAPHY, the SELECTED & ANNOTATED BIBLIOGRAPHY (DS §23) also] contains the titles of... works of which I can now remember that they influenced me in the original formulations of the theory here developed.

– F.A. von Hayek, *The Sensory Order: An Inquiry into the Foundations of Theoretical Psychology*, 1952

- 20TH ANNIVERSARY OF OZONE HOLE DISCOVERY. (2005). 14 September (British Antarctic Survey, Cambridge).
- ACHENBACH, J. (2010). Scientists Find it Difficult to Predict Volcano Behaviour. *Washington Post*. 21 April 2010.
- ANDERSON, T., LEAL, D. (1997). *Enviro-Capitalists: Doing Good While Doing Well* (Rowman & Littlefield, Lanham).
- ATMAR, W. (2008). The Perspective that Age Brings. *The High Desert Observer: The Bulletin of The Astronomical Society of Las Cruces, New Mexico*. December:1-7.
- AUMANN, R. (2006). War and Peace. Nobel Memorial Lecture, 8 December 2005. *Proc Natl Acad Sci USA* 103:17075–17078.
- AUTHOR UNKNOWN (c. 1000 AD) *The Vinland Sagas :The Norse Discovery of America*. M. Magnússon, H. Pálsson, trans, 1965 Ed (Penguin Books, London).
- BALDACCHINO, G., FUNK, M. (2008). *A Search for a Measure of the Quality of Life on Prince Edward Island: An Inter-Provincial 'Cost of Living' Inquiry*. Commissioned by Dr Michael Mayne, Deputy Minister Department of Innovation and Advanced Learning Provincial Government of Prince Edward Island, Canada. 31 July 2008. ISBN: 978-0-919013-58-2.
- BARTMANN, B. (1991). *A World Made Safe for Small States* (Institute of Island Studies, Charlottetown).
- BARTON, W. (1930). *Lincoln at Gettysburg: What He Intended to Say ; What he Said ; What He Was Reported to Have Said ; What He Wished He Had Said*. 1<sup>st</sup> Ed. Union League Club of Chicago Library (Bobbs-Merrill, Indianapolis).
- BEAULIER, S., CAPLAN, B. (2007). Behavioral Economics and Perverse Effects of the Welfare State. *Kyklos* 60:485-507.
- BERRY, R. (2009). Hooker and Islands. *J Lin Soc* 96:462–48.
- BOSTROM, N. (2008). Where are They? Why I Hope the Search for Extraterrestrial Life finds Nothing. *MIT Tech Rev* May/June:72-77.
- BOSTROM, N. (2003). Astronomical waste: The opportunity cost of delayed technological development. *Utilitas* 15:308-314.
- BOYLE, W. (2010). *A Conversation with Dr Willard Boyle: Nova Scotia's first Nobel Prize Winner*. Tuesday, February 2<sup>nd</sup>, 2010, 12:00 PM -1:30 PM (The Halifax Club, Halifax).
- BOYLE, W., MAHONEY, J., CHURCH, E. (2009). Canadian Winner Bemoans Bureaucracy. *Globe and Mail* 6 October: [http://www.mitacs.ca/CMS/asset/143\\_2009-10-9-11-24-54\\_Globe&Mail\\_06102009.pdf](http://www.mitacs.ca/CMS/asset/143_2009-10-9-11-24-54_Globe&Mail_06102009.pdf)
- BROWNE, G. (2009). *Documents on the Confederation of British North America* (McGill-Queen's Univ Press, Montreal).
- CAMPBELL, J. (1949). *The Hero with a Thousand Faces* (Bollingen Foundation, New York)
- CANADA. (1970). *Development Plan for Prince Edward Island: A 15 Year Federal-Provincial Program for Social and Economic Advancement* (Queen's Press, Ottawa).

- CARLQUIST, S. (1983). Intercontinental Dispersal. *Sonderbd Naturwiss Ver Hamburg* 7:37-47.
- CARLQUIST, S. (2009a). *Dispersal to Islands* (Carlquist, Santa Barbara).
- CARLQUIST, S. (2009b). *Loss of Dispersibility on Islands* (Carlquist, Santa Barbara).
- CARLQUIST, S. (1974). *Island Biology* (Columbia Univ Press New York).
- CARLQUIST, S. (1965). *Island Life: A Natural History of the Islands of the World* (Natural History Press, Garden City).
- CARMICHAEL, H. (2006). *The Grand Cascapedia River: A History*. Volume I (Meadow Run Press, Far Hills).
- CASEY, M. (2010). Comic's Party Bests Rivals in Iceland Vote. *Wall Street Journal* 31 May 2010.
- CASSAR, L. (2010). Alleviating Issues of Liquidity. *Hedge Fund Manager Week Special Report: Malta 2010*: 22-23.
- CBC. (2010). Highway crash kills teenaged girl, man. 1 January (Canadian Broadcasting Corp., Toronto).  
<http://www.cbc.ca/canada/montreal/story/2010/01/01/mtl-fatal-crash.html?ref=rss>
- CHURCHILL, W. (1948-1954). *The Second World War*. Vols. I-IV (Cassell, London).
- COLVIN, G. (2008). *Talent Is Overrated: What Really Separates World-Class Performers from Everybody Else* (Penguin, London).
- COPERNICUS, N. (1543). *On the Revolutions of the Heavenly Spheres* (Abbot, London).
- CS1. (2010). *Case Study 1: Gogebic County, Michigan*. <http://www.communitiescommittee.org/fsitool/CaseStudyMI.pdf>
- DANIELS, T., KELLER, J., & LAPPING, M. (2007). *Small Town Planning Handbook* (The Planner's Press, Chicago).
- DANIELS, T., LAPPING, M. (2005). Land preservation: An essential ingredient in smart growth. *Journal of Planning Literature* 19(3):316-329.
- DARWIN, C. (1859). *On the Origin of Species by Means of Natural Selection* (Murray, London).
- DARWIN, C., *et. al.* (1849) *A Manual of Scientific Enquiry; : Prepared for the use of Her Majesty's Navy : and Adapted for Travellers in General* (Murray, London).
- DARWIN, C., WALLACE, A. (1858). On the Tendency of Species to form Varieties; and on the Perpetuation of Varieties and Species by Natural Means of Selection. Communicated by C. Lyell, FLS & J. Hooker, FLS. Read before the Fellows of the Linnean Society of London on July 1<sup>st</sup>, 1858. *Proc Linn Soc* 3:45-62.
- DAWKINS, R. (1986). *The Blind Watchmaker* (Penguin, London).
- DESCARTES, R. (1637). *Discourse on the Method of Rightly Conducting the Reason, and Seeking Truth in the Sciences* (Dunne, Washington).
- DESHA, S. (1922). *Kamehameha and his Warrior Kekuhaupi'o* (Kamehameha Schools, Honolulu).
- DOBZHANSKY, T. (1964). Biology, Molecular and Organismic. *Amer Zool* 4:443-452.
- EARTHLY POWERS. (2010). Earthly Powers: Disasters are about People and Planning, not Nature's Pomp. *Economist* 22 April 2010 – [http://www.economist.com/opinion/displaystory.cfm?story\\_id=15951696](http://www.economist.com/opinion/displaystory.cfm?story_id=15951696)
- EINSTEIN, A. (1954). *Ideas and Opinions* (Crown, New York).
- EINSTEIN, A. (1940). *Statement on Behalf of Bertrand Russell*. Letter to Morris Raphael Cohen, professor emeritus of philosophy at the College of the City of New York, March 19<sup>th</sup>, 1940 (Public Domain).

- EINSTEIN, A. (1920). *Relativity: The Special and the General Theory*. 2006 Penguin Ed, Intro by N Calder (Holt, New York).
- EINSTEIN, A. (1918). The Foundation of the General Theory of Relativity. *Ann Phys* 55:241-244.
- ELLIOTT, R. (2009). *Globalisation and the Environment: A Place to Find News, Research and Discussion on Economic Issues Related to the Impact of Globalisation on the Environment*. Dr Matthew Cole & Dr Robert Elliott, eds., funded by the Leverhulme Trust and Economic & Social Research Council. 30 November (Univ of Birmingham).
- FARMAN, J., GARDINER, B., & SHANKLIN, J. (1985). Large losses of total ozone in Antarctica reveal seasonal ClO<sub>x</sub>/NO<sub>x</sub> interaction. *Nature* 315:207-10.
- FLASPOHLER, D., MEINE, C. (2006). Planning for Wildness: Aldo Leopold's Report on Huron Mountain Club. *J of Forestry* January/February:32-42.
- FOSBERG, F., Ed. (1970). *Man's Place in the Island Ecosystem; A Symposium* (Bishop Museum Press, Honolulu).
- FREY, B., BENESCH, C., STUTZER, A. (2005). Does Watching TV Make us Happy? *J of Econ Psych* 28:283-313.
- FREY, B. (1983). *Democratic Economic Policy : A Theoretical Introduction* (St. Martin's Press, New York).
- FREY, B. (1997). *Not Just for the Money : An Economic Theory of Personal Motivation* (Edward Elgar, Cheltenham).
- FREY, B. (2000). *Why Economists Disregard Economic Methodology* (Institut für Empirische Wirtschaftsforschung, Universität Zürich).
- FREY, B. (2003). Publishing as Prostitution: Choosing Between One's Own Ideas and Academic Success. *Public Choice* 116:205-223.
- FULLER, S. (2003). *Kuhn vs. Popper* (Icon Books, Cambridge).
- FUNK, M. (2010). *Truly Non-Cooperative Games: A Unified Theory*. A PhD thesis submitted to Professor Joseph Falzon, Chair, Department of Banking & Finance, Faculty of Economics, University of Malta, in partial consideration for the degree of Doctor in Philosophy. *MPRA* 22775:1-3 – <http://mpa.ub.uni-muenchen.de/22775/>
- FUNK, M. (2010). On the Origin of Mass Extinctions: Darwin's Nontrivial Error. Prepress archive published 9 November 2009. Announced in *Cognitive & Behavioural Economics, Environmental Economics, Evolutionary Economics, and Neuroeconomics* NEP reports on 27 November 2009; featured in *Globalisation and the Environment* on 30 November 2009 ; accepted for journal publication on 9 December 2009 by Professor Brian G. Gardiner, Editor, *Proc Linn Soc*. *MPRA* 20193:1-13 – <http://mpa.ub.uni-muenchen.de/20193/>
- FUNK, M. (2009a). On the Truly Noncooperative Game of Life on Earth: Darwin, Hardin, & Ostrom's Nontrivial Errors. Announced in the *Game Theory, Cognitive & Behavioural Economics, Environmental Economics, Evolutionary Economics, History & Philosophy of Economics, & All New Papers* NEP Reports on 16 January 2010. *MPRA* 19442:1-5 – <http://mpa.ub.uni-muenchen.de/19442/>
- FUNK, M. (2008a). On the Truly Noncooperative Game of Life on Earth: In Search of the Unity of Nature & Evolutionary Stable Strategy. Announced in the *Cognitive & Behavioural Economics, Environmental Economics, Evolutionary Economics, History & Philosophy of Economics, Resource Economics, & All New Papers* NEP Reports on 8 August 2009. *MPRA* 17280:1-21 – <http://mpa.ub.uni-muenchen.de/17280/>
- FUNK, M. (2009b). On the Truly Noncooperative Game of Island Life: Introducing a Unified Theory of Value & Evolutionary Stable 'Island' Economic Development Strategy. Announced in the *Game Theory, Cognitive & Behavioural Economics, Evolutionary Economics, & All New Papers* NEP Reports on 19 December 2009. *MPRA* 19049:1-113 – <http://mpa.ub.uni-muenchen.de/19049/>



- FUNK, M. (2009c). On the Travesty of the Tragedy of the Commons: Hardin's Nontrivial Error. Announced in the *Cognitive & Behavioural Economics, Business, Economic & Financial History, History & Philosophy of Economics, & All New Papers* NEP Reports on 8 August 2009. *MPRA* 19203:1-1 – <http://mpra.ub.uni-muenchen.de/19203/>
- FUNK, M. (2009d). On the Problem of Economic Power: Lessons from the Natural History of the Hawaiian Archipelago. Announced in the *Cultural Economics, Evolutionary Economics, Business, Economic & Financial History, & All New Papers* NEP Reports on 19 December 2009. *MPRA* 19371:1-19 – <http://mpra.ub.uni-muenchen.de/19371/>
- FUNK, M. (2008b). On the Problem of Breathing, Eating, & Drinking Poison: An Introduction to Problem Solving, Nobility of Purpose Under Adverse Circumstances, and the Search for Truth with Sir Karl Popper on Prince Edward Island. Announced in the *Cognitive & Behavioural Economics, History & Philosophy of Economics & All New Papers* NEP Reports on 13 April 2009. *MPRA* 14483:1-49 – <http://mpra.ub.uni-muenchen.de/14483/>
- FUNK, M. (2008c). On the Problem of Sustainable Economic Development: A Theoretical Solution to this Prisoner's Dilemma. Published online 2008-06-01, revised 2008-06-08; presented in a seminar delivered 11 June 2008, at the Åland International Institute of Comparative Island Studies Annual Conference, *Islands of Competence: Branding Identities in a Globalized World*, Parliamentary Building, Mariehamn, Åland; published online in conference proceedings; reprinted: *MPRA* 19025: 1-117 – <http://mpra.ub.uni-muenchen.de/19025/>
- FUNK, M. (2008d). On the Problem of Vague Terms: A Glossary of Clearly Stated Assumptions & Careful, Patient, Descriptions. Announced in the *History & Philosophy of Economics & All New Papers* NEP Reports on 13 April 2009 *MPRA* 14505:1-64 – <http://mpra.ub.uni-muenchen.de/14505/>
- FUNK, M. (2008e). On the Problem of the Island of Earth: Introducing a Universal Theory of Value in a Letter to the President of the United States. An Open Letter George W. Bush. Dated 4 July 2008. Mailed via FEDEX 26 July 2008 from The Union League Club, Room 1602, Chicago, IL, 60604, USA. Delivered at The White House, 12:25 PM, 29 July 2008, signed for by J. Casey. Announced in the *History & Philosophy of Economics & All New Papers* NEP Reports on 13 April 2009 *MPRA* 14489:1-66 – <http://mpra.ub.uni-muenchen.de/14489/>
- FUNK, M. (2008f). *On the Problem of Connectivity: The Value of Relative Insularity*. A seminar delivered 11 June 2008, 1:00 PM, at the Åland International Institute of Comparative Island Studies, Mariehamn, Åland (AICIS, Åland).
- FUNK, M. (2007). On the Problem of Dependent People: Hyperbolic Discounting in Atlantic Canadian Island Jurisdictions. *MPRA* 14522:1-96 – <http://mpra.ub.uni-muenchen.de/14522/>
- GATES, B., MYHRVOLD, N., & RINEARSON, P. (1995). *The Road Ahead* (Viking Penguin, New York).
- GANLEY, D. (2009). 'Atlas Shrugged' author sees resurgence: Ayn Rand's *Atlas Shrugged* has sold hundreds of thousands in last 18 months; Book's sales have been sparked by financial crisis. April 27, 2009. *CNN*. <http://www.cnn.com>.
- GARDINER, B. (1995). The Joint Essay of Darwin and Wallace. *Proc Linn Soc* 11:13-24.
- \*GOLD, E., *et al.* (1982). Problems of Development and Ocean Management in the Eastern Caribbean : Economic, Legal, Environmental and Planning Aspects: *Proceedings* of an International Seminar held in Kingstown, St. Vincent and the Grenadines, West Indies, 11-13 May, 1981 (Dalhousie Univ, Halifax).
- GOLDSMITH, F. (1973). The ecologist's role in development for tourism: a case study in the Caribbean. *Biological Journal of the Linnean Society*, 5:265-287.
- GOULD, S. (2002). *The Structure of Evolutionary Theory* (Harvard Univ Press, Cambridge).
- GREENBLATT, J. (1997). *You Can Be a Stock Market Genius: Uncover the Secret Hiding Places of Stock Market Profits*.
- HARDIN, G. (1968). The Tragedy of the Commons. *Science* 162:1243-1248.

- HAWKING, S. (2008). *Big Questions About the Universe* (TED, New York).
- HAYEK, F. (1982). *Law, legislation and liberty :A new statement of the liberal principles of justice and political economy*. Routledge, London).
- HAYEK, F. (1979). *The counter-revolution of science : studies on the abuse of reason* 2<sup>nd</sup> ed (Liberty Press, Indianapolis).
- HAYEK, F. (1976). *Law, Legislation and Liberty*. Volume 2: "The Mirage of Social Justice" (Univ Chicago Press, Chicago).
- HAYEK, F. (1974a). *Sveriges Riksbank Prize Banquet Speech*. 10 December 10, 1974 (Sveriges Riksbank, Stockholm).
- HAYEK, F. (1974b). The Pretense of Knowledge. Nobel Memorial Lecture, December 11, 1974. 1989 reprint: *The Amer Econ Rev* 79:3-7.
- HAYEK, F. (1960). *The Constitution of Liberty* (Routledge, London).
- HAYEK, F. (1952). *The Sensory Order: An Inquiry into the Foundations of Theoretical Psychology* (Univ Chicago Press, Chicago).
- HAYEK, F. (1945). The Use of Knowledge in Society. *Amer Econ Rev* 35:519-530.
- HAYEK, F. (1944a). *The Road to Serfdom*. 2001 ed (Routledge, London).
- HAYEK, F. (1944b). Scientism and the Study of Society. Part II. *Economica*, 11(41), 27-39.
- HAYEK, F. (1943a). Scientism and the Study of Society. Part I *Economica*, 10(37), 34-63.
- HAYEK, F. (1943b). The Facts of the Social Sciences. *Ethics* 54:1-13.
- HAYEK, F. (1941). The Counter-Revolution of Science. *Economica* 29:9-36.
- HAYEK, F. (1933). The Trend of Economic Thinking. *Economica* 40:121-137.
- HAYEK, F., BARTLEY, W., & KRESGE S. (1991). *The Trend of Economic Thinking : Essays on Political Economists and Economic History* (Univ Chicago Press, Chicago).
- HAYEK, F., BARTLEY, W. (1988). *The Fatal Conceit :The Errors of Socialism* (Routledge, London).
- HAYEK, F., KRESGE, S., WENAR, L., (1994). *Hayek on Hayek : an autobiographical dialogue* (Univ Chicago Press, Chicago).
- HELFERICH, G. (2004). *Humboldt's Cosmos: Alexander von Humboldt and the Latin American Journey that Changed the Way We See the World* (Gotham, New York).
- HEMINGWAY, E. (1954). *Nobel Prize Banquet Speech* (Stockholm).
- HERMAN. (2001). *How the Scots Invented the Modern World: The True Story of How Western Europe's Poorest Nation Created Our World & Everything in It* (Random House, New York).
- HINDAWI. (2007). *Terry Sloan*. Biography updated 4 June 2007 (Hindawi New York).
- HMWF. (2009). *Well Grounded: Science and History at the Huron Mountain Wildlife Foundation* (History Works, Chicago).
- HOBLITT, R., et. al. (1998). *Volcano Hazards from Mount Rainier, Washington*. Open-File Report 98-428 (USGS, Denver).
- HOLMES, M. (2008). *Milestone Documents in American History* (Salem Press, Pasadena).
- HOLT, C., ROTH, A. (2004). The Nash equilibrium: A perspective. *Proc Natl Acad Sci USA* 101:3999-4000.

- HOLT, D. (2009). *Can an Unusual Upbringing Lead to a Nobel Prize?* <http://www.progressmedia.ca/article/2009/12/talent-will-out>.
- HOWELLS, B., STONEY, G. (2006). *Prince Edward Island Development Plan* [videorecording: DVD]. Quebec. 2 videodiscs (113 minutes). Directed by Roger Hart; produced by Barrie Howells and George Stoney. Part 1: "Ten days in September." Part 2: *Four days in March* (The National Film Board of Canada, Montreal).
- HUMBOLDT, A. (1845). *Cosmos: A Sketch of the Physical Description of the Universe* (Harper & Brothers, Philadelphia).
- HUMBOLDT, A. (1817). *Des lignes isothermes et de la distribution de la chaleur sur le globe*. (Perronneau, Paris).
- HUMBOLDT, A. (1814). *Researches Concerning the Institutions and Monuments of the Ancient Inhabitants of America* (Longman, et. al., London).
- HUMBOLDT, A. (1811). *Political Essay on the Kingdom of New Spain* (AMS, New York).
- HUMBOLDT, A. (1807). *Aspects of Nature in Different Lands and Climates; with Scientific Elucidations* (Lean & Blanchard, Philadelphia).
- HUMBOLDT, A., BONPLAND, A. (1814). *Personal Narrative of Travels to the Equinoctial Regions of the New Continent* (Longman, London).
- HUME, D. (1739). *A Treatise of Human Nature* (Noon, London).
- IIHS. (2009). CAR SIZE AND WEIGHT ARE CRUCIAL. *Status Report* Vol. 44, No. 4, April 14, 2009 (Insurance Institute for Highway Safety, Arlington).
- IRVINE, A. (2003). Bertrand Russell. *Stanford Encyclopedia of Philosophy* (The Metaphysics Research Lab, Stanford).
- ISAACSON, W. (2007). The World Needs More Rebels Like Einstein. *Wired* 15:4.
- JAGGER, M. (2008). *A Taste of Mustique* (Macmillan, Oxford).
- JARVIE, I., PRALONG, S. (1999). *Popper's Open Society After Fifty Years* (Routledge, London).
- JENTZSCH, G., AUMANN, R. (1963). *Some Thoughts on the Theory of Cooperative Games – RM3398*. By G Jentzsch. Preface by R Aumann, Editor (RAND, Santa Monica).
- JEFFERSON, T., ADAMS, J., PAINE, T., et. al. (1788). *The United States Constitution* (Washington, D.C.).
- JONES, A. (1949). Fashions in Forecasting. *Fortune* March: 88-91, 180, 182, 184, 186.
- KANIPE, J. (2009). *The Cosmic Connection: How Astronomical Events Impact Life on Earth* (Prometheus, Amherst).
- KANIPE, J. (2006). Climate Change: A Cosmic Connection, *Nature* 443:141-143, doi:10.1038/443141.
- KANT, I. (1766). *Dreams of a Ghost-Seer [Traume eines Geistersehers]* 1880 Ed. (Kehrbach, Leipzig).
- KEYNES, J. (1920). *The Economic Consequences of the Peace* (Harcourt, New York).
- KIRZNER, I. (2006). *Society for the Development of Austrian Economics (SDAE) Lifetime Achievement Award acceptance speech by Professor Israel M. Kirzner* (SDAE).
- KRANZ, G. (2000). *Failure is Not an Option: Mission Control from Mercury to Apollo 13 and Beyond*. 2009 Ed (Simon & Schuster, New York).

- KUHN, H. (1994). *The Work of John Nash in Game Theory*. Nobel Seminar, December 8, 1994 (The Royal Academy, Stockholm).
- LA BREE, C. (2007). *New Hampshire's General John Stark – Live Free or Die: Death Is Not the Worst of Evils* (Randall, Portsmouth).
- LANE, N. (2007). Mass extinctions. *Nature* 448:122-125.
- LAPPING, M. (2007). Wanted: A Maine woods dialogue [Commentary]. *Maine Policy Review* 16(2):102-103.
- LAPPING, M. (2006) Rural planning and policy. In P Cloke, *et. al.*, (eds.) *Handbook of Rural Studies*.
- LAPPING, M. (2005a) Rural Planning and Policies. (*Rural Development Paper No. 31*).
- LAPPING, M. (2005b) Sprawl: Contemporary land use planning's paradigm. In J Bergstrom, *et. al.*, (eds.), *Land use Problems and Conflicts: Causes, Consequences, and Solutions*.
- LAPPING, M. (2005c). *Toward the recovery of the local in the globalizing food system: The role of alternative agricultural and food models in the US. Ethics, Place and Environment*.
- LAXNESS, H. (1955). *Nobel Banquet Speech* (Nobel Foundation, Stockholm).
- LAXNESS, H. (1946). *Independent people : An epic [Sjálfstætt fólk.]* (Knopf, New York).
- LEFÈVRE, E. (2010). *Reminiscences of a Stock Operator*. Annotated Ed (Wiley & Sons, Hoboken).
- LEOPOLD, A. (1938). *Report on Huron Mountain Club*. 5 June 1938 (Unpublished, Public Domain).
- LINCOLN, A. (1863). *The Gettysburg Address*. 19 November 1863 (Library of Congress, Washington).
- LINNEAN SOCIETY. (2009). Is Biodiversity Really Under Pressure? (The Linnean Society, London).
- LLEWELYN-DAVIES, WEEKS, *et. al.* (1970). *The Mustique Development Plan* (Unpublished, Public Domain).
- LLOYD, W. (1832). Two lectures on the checks to population. 1980 reprint: *Pop and Devel Rev*.
- LOWENSTEIN, R. (2000). *When Genius Failed: The Rise and Fall of Long Term Capital Management* (Random House, New York).
- LYRICS DEPOT. (2008). <http://www.lyricsdepot.com/crosby-stills-nash/southern-cross.html>
- MAHONEY, J., CHURCH, E. (2009). Canadian Winner Bemoans Bureaucracy. *Globe and Mail* 6 October: [http://www.mitacs.ca/CMS/asset/143\\_2009-10-9-11-24-54\\_Globe&Mail\\_06102009.pdf](http://www.mitacs.ca/CMS/asset/143_2009-10-9-11-24-54_Globe&Mail_06102009.pdf)
- MALTHUS, T. (1798). *An Essay on the Principle of Population* (Johnson, London).
- MARTIN, H. (1978). *This Happy Isle: The Story of Sea Island and the Cloister* (Sea Island Co., Sea Island).
- MAYNARD SMITH, J. (1982). *Evolution and the Theory of Games* (Cambridge Univ Press, New York).
- MAYR, E. (2004). *What Makes Biology Unique: Considerations on the Autonomy of a Scientific Discipline* (Cambridge Univ Press, New York).
- MAYR, E. (2001). Philosophical Foundations of Darwinism. *Proc of the Amer Phil Soc* 145:488-495.
- MCCABE, K. (2003). *Final Cut Express : Make the Cut* (Charles River Media, Herndon).
- MCGILLIGAN, A. (2008). Economy New Brunswick's biggest worry. *Telegraph-Journal* 8 September 2008.

- MOORE, H. (1949). *A Life of General John Stark of New Hampshire* (Moore, New York)
- MULLEN, W. (2009). 1 Birthday, but 2 Incredible Lives: Influence of Charles Darwin, Abraham Lincoln Strong as their Bicentennial Nears. *The Chicago Tribune*. Sunday, 8 February 2009. Section 2.
- MURRAY, R., TOPEL, F., SAXON, E., *et. al.*, (2002). *Writer Susan Orlean and Producer Edward Saxon Talk About 'Adaptation' and 'The Orchid Thief'*. <http://movies.about.com/library/weekly/aaadaptationintc.htm> (New York Times Co., New York).
- NASAR, S. (1998) *A Beautiful Mind: The Life of Mathematical Genius and Nobel Laureate John Nash* (Simon & Schuster, New York).
- NASH, J. (1951). Non-Cooperative Games. PhD dissertation, May 1950, Princeton University – [http://www.princeton.edu/mudd/news/faq/topics/Non-Cooperative\\_Games\\_Nash.pdf](http://www.princeton.edu/mudd/news/faq/topics/Non-Cooperative_Games_Nash.pdf)
- NASH, J. (1950a). *Two-Person Cooperative Games*. RAND P-172 – <http://www.rand.org/pubs/papers/2005/P172.pdf> (RAND, Santa Monica).
- NASH, J. (1950b). Equilibrium points in n-person games. Comm by S. Lefschetz. *Proc Natl Acad Sci USA* 36:48–49.
- NASH, J., KUHN, H., & NASAR, S. (2002). *The Essential John Nash*. H. Kuhn, S. Nasar eds. H. Kuhn preface, S. Nasar intro. (Princeton Univ Press, Princeton).
- NASH, J., KUHN, H. (2009). John F. Nash, Senior Research Mathematician, and Harold W. Kuhn, Professor of Mathematical Economics, Emeritus, Discuss the early days of Game Theory in Fine Hall. Thursday, April 16, 2009 (Princeton University, Princeton, NJ).
- NEFF, J. (2006). *Katahdin: An Historic Journey* (AMC Books, Boston).
- NEUMANN, J., MORGENSTERN, O. (1944). *Theory of games and Economic Behaviour*. 2004 60<sup>th</sup> Anniversary Ed. Intro by H. Kuhn, Afterword by A Rubinstein (Princeton Univ Press, Princeton).
- NEWTON, I. (1687). *The Mathematic Principles of Natural Philosophy*. 1848 Ed (Adee, New York).
- OLSBERG, N. (2008). John Lautner: Dissolving the Confines. *Modernism* spring:54-63.
- OPPENHEIMER, R. (1955). *The Open Mind* (Simon & Schuster, New York).
- PAINE, T. (1776). *Common Sense* (Bell, Philadelphia).
- PEARSE, P. (1988). Property Rights and the Development of Natural Resource Policies in Canada. *Canadian Public Policy* 14:307-320.
- PIVEN, J., BORGENTNIGHT, D., & BROWN, B. (2009). *The Worst-Case Scenario Survival Handbook 2010 Calendar* (Chronicle Books, San Francisco).
- POPPER, K., *et. al.* (1999). *Popper's Open Society After Fifty Years* (Routledge, London).
- POPPER, K. (1999). *All life is Problem Solving* (Routledge, London).
- POPPER, K. (1992). *In Search of a Better World [Auf der Suche nach einer besseren Welt]* (Routledge, London).
- POPPER, K. (1962). *Conjectures and refutations: The Growth of Scientific Knowledge*. 1963 Ed (Routledge, London).
- POPPER, K. (1974) *Unended Quest*. 2002 Ed (Routledge, London).
- POPPER, K. (1959). *The Logic of Scientific Discovery [Logik der Forschung, 1935, Vienna]* (Routledge, London).

- POPPER, K. (1957). *The Poverty of Historicism* (Routledge, London).
- POPPER, K. (1956a). *Realism and the Aim of Science*. 1983 Ed (Routledge, London).
- POPPER, K. (1956b). ON THE NON-EXISTENCE OF SCIENTIFIC METHOD. Read before the the Fellows of the *Center for Advanced Study in the Behavioural Sciences* at Stanford, California (Routledge, London).
- POPPER, K. (1945). *The Open Society and its Enemies*. Vols. I & II (Routledge, London).
- RAND, A. (1957). *Atlas Shrugged*. 35<sup>th</sup> Anniversary facsimile edition of the original hard-cover edition. 1st Ed leather-bound printing, March 1992. Intro by L Peikoff, September 1991 (Dutton, New York).
- RAND, A. (1969). *The Romantic Manifesto: A Philosophy of Literature* (Penguin, New York).
- RENATUS, F. (390). *De Re Militari* (Griffin, London).
- RIPLEY, A. (2008). *The Unthinkable: Who Survives when Disaster Strikes – and Why* (Three Rivers Press, New York).
- ROCHFORD, N. (2010). UPEI Professor Sheds Light on Island Watershed Groups. *The Guardian* 23 May 2010.
- ROOSEVELT, T. (1900). *The Winning of the West*. Vols. I-VI. Octavo volumes in full green morocco leather; illustrated with plates and five folding maps (Putnam, New York).
- \*ROOSEVELT, T. (1899). *The Rough Riders*. This eBook is for the use of anyone anywhere at no cost and with almost no restrictions whatsoever. You may copy it, give it away or re-use it under the terms of the Project Gutenberg License ([www.gutenberg.net](http://www.gutenberg.net)).
- \*ROOSEVELT, T. (1885). *Hunting Trips of a Ranchman: Hunting Trips on the Prairie and in the Mountains* (Schribner & Sons, and Putnam & Sons, New York)
- ROWBOTTOM, D, AISTON, S. (2006). The Myth of 'Scientific Method' in Contemporary Educational Research. *J of Phil of Ed* 40:137-156.
- RUSSELL, B. (1938). *Power: A New Social Analysis* (Allen & Unwin, London).
- RUSSELL, B. (1928). *Sceptical Essays* (Allen & Unwin, London).
- RUSSELL, P. (1993). *Constitutional Odyssey: Can Canadians Become a Sovereign People?* 2nd Ed (Univ of Toronto, Toronto).
- SAMUELSON, P. (1969). "The Way of an Economist", *International Economic Relations: Proceedings of the Third Congress of the International Economic Association*: 1-11 (Macmillan, London).
- SAXON, E. (2002). Kaufman C (2002) Adaptation. A feature film production of C. Kaufman's adaptation of S. Orlean's 1994 *The Orchid Thief* (Columbia Pictures, Los Angeles).
- \*SCHUYLER, G., VELTMEYER, H. (1987). *Rethinking Caribbean Development* (IEC, Halifax).
- SCIENTISTS CELEBRATED: GLOBAL SOCIETY AWARDS ENVIRONMENTALISTS TOP ACCOLADE. (2000). 13 April (SCI, London).
- SCOTT, R. (1982). *Bladerunner*. A feature3 film production. Produced by Michael Deeley, screenplay by Hampton Fancher and David Peoples, an adaptation of *Do Androids Dream of Psychedelic Sheep?* By Philip K. Dick.
- SENECA. (c. 60 AD). *On the Shortness of Life*. 1997 Ed (Penguin, London).
- SEMPLE, E. (1911). *Influences of Geographic Environment* (Holt & Co., New York).

- SLOAN, T. (2008). The Structure of the Nucleon from the HERA experiments. *Nuclear Phys B - Proc Supp* 175-176:48–53.
- SLOAN, T., *et. al.* (2009a). A precision measurement of the inclusive ep scattering cross section at HERA. *Euro Phys Journal C* 64:561–587.
- SLOAN, T., *et. al.* (2009b). Deeply virtual Compton scattering and its beam charge asymmetry in  $e\pm p$  collisions at HERA. *Phys Letters B* 681:391–399.
- SLOAN, T., *et. al.* (2009c). Events with isolated leptons and missing transverse momentum and measurement of W production at HERA. *Euro Phys Journal C* 64:251–271.
- SLOAN, T., *et. al.* (2009d). Measurement of the inclusive ep scattering cross section at low  $Q^2$  and  $x$  at HERA. *Euro Phys Journal C* 63:625–678.
- SLOAN, T., *et. al.* (2009e). Study of the acoustic signature of UHE neutrino interactions in water and ice
- SLOAN, T., *et. al.* (2009f). *Nuclear Instruments and Methods in Phys Research A* 607:398–411.
- SLOAN, T., *et. al.* (2009g). Search for single top quark production at HERA. *Phys Letters B* 678:450–458.
- SLOAN, T., *et. al.* (2009h). Search for excited quarks in ep collisions at HERA. *Phys Letters B* 678:335–343.
- SLOAN, T., *et. al.* (2009i). Some aspects of ionization and the cloud cover, cosmic ray correlation problem. *J of Atmospheric and Solar-Terr Phys* 71:823–829.
- SLOAN, T., *et. al.* (2009j). On the nature of the correlation between cosmic-ray intensity and cloud cover. *Bull of the Russ Acad Science: Phys* 73:390–393.
- SLOAN, T., *et. al.* (2009k). Strangeness production at low  $Q^2$  in deep-inelastic ep scattering at HERA. *Euro Phys Journal C* 61:185–205.
- SLOAN, T., *et. al.* (2009l). A general search for new phenomena at HERA. *Phys Letters B* 674:257–268.
- SLOAN, T., *et. al.* (2009m). Inclusive photoproduction of  $\rho^0$ ,  $K^*0$  and  $\phi$  mesons at HERA. *Phys Letters B* 673:119–126.
- SLOAN, T., *et. al.* (2009n). Measurement of diffractive scattering of photons with large momentum transfer at HERA  
*Phys Letters B*, 672:219–226.
- SLOAN, T., *et. al.* (2008a). The ATLAS experiment at the CERN large hadron collider  
*J of Instrumentation*, 3.
- SLOAN, T., *et. al.* (2008b). Multi-lepton production at high transverse momenta in ep collisions at HERA. *Phys Letters B*.
- SLOAN, T., *et. al.* (2008c). Three- and four-jet production at low  $x$  at HERA. *Euro Phys Journal C* 54:389–409.
- SLOAN, T., *et. al.* (2007a). Search for lepton flavour violation in ep collisions at HERA. *Euro Phys Journal C* 52:833–847.
- SLOAN, T., *et. al.* (2007b). Simulation of ultra high energy neutrino induced showers in ice and water. *Astro Phys* 28:366–379.
- SLOAN, T., ERLYKIN, A., WOLFENDALE, A. (2009). The search for cosmic ray effects on clouds. *J of Atmospheric and Solar-Terr Phys* 71:955–958.

- SLOAN, T., WOLFENDALE, A. (2000). Man Made Global Warming Explained – Closing The Blinds (arXiv:1001.4988v3 [physics.ao-ph]).
- SLOCUM, J. (1900). *Sailing Alone Around the World*. 1948 Ed (Adlard Coles, Norwich).
- SMITH, A. (1776). *An Inquiry into the Nature and Causes of the Wealth of Nations* (Strahan & Cadell, London).
- SMITH, G., SMITH, A. (2009). *Telephone interview with George E. Smith immediately following the announcement of the 2009 Nobel Prize in Physics*. 6 October 2009 (Nobelprize.org, Stockholm).
- SOKAL, A. (2008). *Beyond the Hoax: Science, Philosophy, and Culture* (Oxford Univ Press, New York).
- SOBEL, D. (1995). *Longitude: The True Story of a Lone Genius Who Solved the Greatest Scientific Problem of His Time* (Walker, New York).
- SOROS, G. (2008). *Statements of George Soros before the U.S. House of Representatives Committee on Oversight and Government Reform*. 13 November 2008 (House of Representatives, Washington).
- STALEY, K. (1997). *The Art of Short Selling* (Marketplace Books, New York).
- STIGLER, G. (1982). The Process and Progress of Economics. *J of Pol Econ* 91:529-545.
- STORY, J. (1840). *A Familiar Exposition of the Constitution of the United States*. By Joseph Story, Justice of the U.S. Supreme Court 1811-1845. Foreword by E Meese III (Harper, New York).
- STORY, J. (1841). *Folsom v. Marsh*, 9 F. Cas. 342, 348 (D. Mass. 1841).
- TAAGEPERA, R. (1993). *Estonia: Return to Independence* (Westview Press, Boulder).
- TALEB, N. (2001). *Fooled by Randomness* (Texere, New York).
- TARVIS, C. ARONSON, E. (2007). *Mistakes Were Made (But Not by Me): Why We Justify Foolish Beliefs, Bad Decisions, and Hurtful Acts* (Harcourt, Orlando).
- TAYLOR, P. (2010). Euro zone crisis - it's the politics, stupid! 31 May 2010, 10:11am BST (Reuters, Paris).
- THATCHER, M. (1987). No Such Thing as Society. An interview with Douglas Keay, 23 September 1987, No.10 Downing Street. Published 31 October 1987 *Woman's Own*: 8-10.
- THOMAS, W. (1963). The Variety of Physical Environments among Pacific Islands. In Fosberg F, National Academies of Sciences, eds. (1970) *Man's Place in the Island Ecosystem* (Bishop Museum, Honolulu).
- TUCKER, A. (1950). *A Two Person Dilemma* (Public Domain, Stanford).
- TUCKER, A., MAUER, B. (1983). An Interview with Albert W. Tucker. *Two-Year College Math J* 14:210-224.
- TURNER, T. (2008). *Call Me Ted* (Grand Central, New York).
- UNIVERSITY OF TORONTO. (1971). *Statement of Purpose* (Univ Toronto, Toronto).
- USD. (2009). USD Faculty Recognized For Extraordinary Research. *Vermillion Plain Talk*, 23 October 2009.
- USD. (2010). Physics – <http://www.usd.edu/arts-and-sciences/physics/people.cfm> (Univ S Dakota, Vermillion).
- WALLACE, A. (1903). Man's Place in the Universe. *Fortnightly Review & The Independent* 55:473-483.
- WALLACE, A. (1881). *Island Life*. 1892 Ed (Macmillan, London).



- WALLACE, A. (1855). On the Law Which has Regulated the Introduction of New Species. *Ann of Nat History* 16:184-195.
- WARWICK, B. (2000). *Searching for Alpha* (Wiley & Sons, New York).
- WEISER, S., STONE, O. (1987). *Wall Street*. An original screenplay (20<sup>th</sup> Century Fox, Los Angeles).
- WIESER, F. (1893). *Natural Value* [Natürliche Werth]. 1989 Ed, A. Kelley, Fairfiled. Preface by W. Smart, Glasgow, 1893. Author's preface, Prag, September 1888 (Macmillan & Co., London).
- WHITNEY, D. (2008). *Hidden History of New Hampshire* (History Press, Charleston).
- WILLIAMS, J. (1954). *The Compleat Strategyst: Being a Primer on the Theory of Games of Strategy* (RAND, Santa Monica).
- WISNIEWSKI, R. (1979). *The Rise and Fall of the Hawaiian Kingdom* (PBE, Honolulu).
- WOLFE, T. (1929). *Look Homeward, Angel* (Scribner, New York).