

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Changes in Version 2004.01.08

Chapter 2, Venn Diagram

Changed shape of sets 4 and 5 to create a region that is part of the set of philosophical theories and the set scientific theories that predict but not part of the set of scientific theories that explain. This accommodates philosophers of science who would reject quantum mechanics as a theory that explains but accept it as a philosophical theory.

Chapter 5, Introduction, first paragraph, last sentence

“The biologist, having realized **consumer goods are not the only means of satisfying human needs**, decides to market the tea at an affordable price.”

was changed to:

“The biologist, having realized **that wealth is human goods and the capacity to produce human goods**, decides to market the tea at an affordable price.”

Chapter 6, *Control the Money Supply Passively*, last paragraph

“Recursionist monetary policy **aims at eliminating the causes of turbulence, not turbulence per se. It seeks to dampen** turbulence only when turbulence threatens the political stability of the system.”

was changed to:

“**Burying problems postpones, not eliminates, turbulence. Only improving the quality of decision-making eliminates turbulence.** Recursionist monetary policy **seeks to postpone** turbulence only when turbulence threatens the political stability of the system.”

Changes in Version 2004.01.12

Preface, fifth paragraph, second sentence:

“Those who **define the markets for intellectual tools to exclude everything but theories** ought to consider the following:”

was changed to:

“**They** ought to consider the following:”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Chapter 3, Eliminating Unethical Theories, fourth paragraph, last sentence

Changed “the people” to “humanity.”

Changes in Versions 2004.01.28

Preface, fifth paragraph, third sentence:

“A theory for helping us formulate alternatives ought to address all uncertainty.”

was changed to:

“An intellectual tool for helping us formulate alternatives ought to address all uncertainty.”

Chapter 2, End

Added the section “*Practical Wisdom, Specialization, and Moral Science.*”

Chapter 3, Introduction, last paragraph

“We also need to define ‘religion.’ Religion concerns how we mystically unite with something greater than ourselves. The words that several major religions use to define this concern reflect this aim: ‘religion’ comes from the Latin word that means to relink; ‘yoga’ comes from the Sanskrit word that means to yoke; and ‘Islam’ comes from the Arabic word that means to submit (to the will of God). From this perspective, the statement that Marxist-Leninism is a secular religion is more than a metaphor. It is a statement of fact: True believers in Marxist-Leninism called on individuals to satisfy their human need for mystical unity by submitting to the will of humanity as interpreted by Marxist-Leninist leaders.”

was deleted.

Changes in Versions 2004.01.30

Preface, last paragraph, fifth sentence

Inserted the sentence: “(See Appendix: The Toyota System.)”

Chapter 1, Modern Economics' Blind Spot, third paragraph, second sentence

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“When combined **with economies of scale**, this local “lock-in” effect can become significant.”

was changed to:

“When **knowledge in use is** combined **in a network**, this local “lock-in” effect can become significant.”

Chapter 2, *Theories are refinements of everyday thinking.*, sixth paragraph, first sentence

Added the sentence:

“This is a matter of producing and testing hypotheses.”

Chapter 2, *Practical Wisdom, Specialization, and Moral Science*, title

The title was changed to: “*Practical Wisdom and Moral Science*.”

Chapter 2, *Practical Wisdom and Moral Science*, body

There were many small changes to this section. The most notable were eliminating the paragraphs on religion and the division of labor.

Chapter 3, *Sacrifice versus Prudence*, second paragraph, sixth sentence

Changed “unchecked” to “relatively unchecked.”

Chapter 4, *Production*

“**As the rapid tool-setting example showed, a well designed and implemented production process produces both product and production technology. Such joint production requires people that have the practical wisdom to think of better ways to produce. It also requires trading relationships that support the exchange of dangerous information. Excellence in consumption, trade, and production potentially create a complex virtuous cycle. Only by pursuing excellence everywhere can we realize the full potential of the information age.**”

was changed to:

“A well designed and implemented production process produces both product and production technology.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Chapter 3, eleventh footnote, second paragraph, last sentence

“For those who believe that all life contains an element of the infinite Being, it is a contract with the infinite Being.”

was deleted.

Chapter 3, *Sacrifice versus Prudence*, second paragraph, end

Added the sentence:

“The wise temper sacrifice with prudence.”

Chapter 3, *Sacrifice versus Prudence*, last two paragraphs

“In modern times, most ritual deaths have been in support of illiberal **societies, societies that** centralize most decision-making. Centralizing **most** decision-making **dramatically reduces their efficiency and their ability to learn by doing.** To compete **with** liberal societies, leaders **of illiberal ones must** encourage **their subjects to make extreme** sacrifices. They **commonly** do so by promoting an apocalyptic vision of the future buttressed by a romantic vision of the past. **This** apocalyptic vision promises heaven on earth for surviving true believers after they triumph over their enemies. **Illiberal leaders push sacrifice over prudence and romance over enlightenment.**

“Instead of the promise of violent revolution followed by magical enlightenment, liberal societies offer tangible progress through self-moderating, mildly turbulent evolution. Thoughtful liberals refute the belief in the magical enlightenment of the leaders of the true believers after winning the final battle over their enemies. Power is far more likely to lead to corruption than to magical enlightenment. They also recognize that the need for sacrifice arises from unsatisfied needs. The wise temper sacrifice with prudence and romance with enlightenment.”

were changed to:

“In modern times, most ritual deaths have been in support of illiberal **leaders, leaders who have** centralized decision-making **beyond what is prudent.** To compete **against** liberal societies, both in reality and in the hearts and minds of their subjects, **illiberal** leaders encourage sacrifice. The **worst** do so by promoting an apocalyptic vision of the future buttressed by a romantic vision of the past. **Apocalyptic visions** promise heaven on earth for surviving true believers after they triumph over their enemies. **Visions of a past that never existed compete against liberal visions of a better future. Illiberal leaders push sacrifice over prudence and romance over enlightenment.”**

Chapter 3, thirteenth footnote

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“This argument is based on a compressed amalgam of F. A. Hayek’s *The Road to Serfdom* and Paul Berman’s *Terror and Liberalism*. Hayek, a classical liberal economist, focuses on the practical problems of central planning that plague totalitarian regimes. Berman, a modern liberal intellectual, focuses on the cultural ideals of these regimes. Note that the classical liberal focuses on means and the modern liberal focuses on ends.”

was changed to:

“Berman, Paul *Terror and Liberalism*, (New York: W.W. Norton & Company, 2003).”

Chapter 4, *Pleasure and Pain*, fifth paragraph, last sentence

“Finding pleasure in playing chess requires investing in how to play the game.”

was changed to:

“Finding pleasure in playing chess requires investing in **knowledge of** how to play the game.”

Changes in Versions 2004.02.04

Chapter 2, *Practical Wisdom and Moral Science*, third paragraph, end

Added the footnote:

⁶ We can think about this complex interplay, which speculator and philanthropist George Soros calls "reflexivity," as the combination of two universal tendencies of normative intellectual models. The first is the tendency of normative models to become increasingly popular. This is due to their self-fulfilling nature. The second is their tendency to undermine the conditions that make them useful. This is due to their imperfections. When we apply these models repeatedly, they tend to lead us ever further away from ideal paths toward living good lives. (The "piling up" of intrinsic errors tends to pull us away from "attractors" that "emerge" from our teleonomic programming.) Model quality tends to vary directly with the first tendency and inversely with the second. This explains why speculative bubbles are the exception rather than the rule.”

Appendix, first paragraph, last two sentences

“Where Smith’s pin factory combined pre-industrial age technology with industrial age batch manufacturing organization and management, JIT combines industrial age

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

batch manufacturing technology with something post-industrial. The joke is that economists cannot agree on **its** name, much less what makes it special.”

was changed to:

“Where Smith’s pin factory combined pre-industrial age technology with industrial age batch manufacturing organization and management, **JIT/Lean Manufacturing/Toyota Production System** combines industrial age batch manufacturing technology with something post-industrial. The joke is that economists cannot agree on **the system’s** name, much less what makes it special.”

Changes in Versions 2004.02.06

Chapter 4, Production

“**The marginalist concept of consumption is loosely based on utilitarian ethics. In contrast, the recursionist concept is based on humanistic ethical theories.** Humanistic ethics differs markedly from utilitarian ethics. From the **utilitarian** perspective, winning a fortune in the lottery will automatically lead to a good life, and so it is unequivocally good. From the **humanistic** view, it can be bad if the winner is foolish, as would be the case if the winner were an alcoholic who would use the money to pursue his or her self-destructive habit. Understanding **why this is** so requires a deeper understanding of pleasure and pain.”

was changed to:

“**The humanistic ethics of recursionist economics** differs markedly from **the utilitarian ethics of marginalist economics.** From the **marginalist** perspective, winning a fortune in the lottery will automatically lead to a good life, and so it is unequivocally good. From the **recursionist** view, it can be bad if the winner is foolish, as would be the case if the winner were an alcoholic who would use the money to pursue his or her self-destructive habit. Understanding **this difference** requires a deeper understanding of pleasure and pain.”

Chapter 4, Production

“**A well designed and implemented** production process produces **both** product and production technology.”

was changed to:

“**Production processes** produce **useful knowledge as well as** products. **The wise plan to learn from experience.**”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Chapter 4, Profit, first three sentences

“Profit is the result of processing inputs into outputs well. We profit by deciding wisely. The profits that we create by consuming wisely are just as real as those that we create by trading or producing wisely.”

were changed to:

“Profits are the result of acting wisely. The profits from consuming wisely are just as real as those from trading or producing wisely.”

Chapter 5, Introduction, second paragraph, fourth sentence

“Consumer prices would also rise as resources formerly used to produce consumer goods are diverted to the reallocation process.”

was deleted.

Chapter 5, Introduction, third paragraph

“This little thought experiment exposes the foolishness at the heart of macroeconomics. From the recursionist perspective, the problem is obvious: addressing strategic issues using the inherently tactical conceptual framework of marginalist economics is foolish. From the marginalist perspective, the problem is less obvious but no less real: measuring aggregate production is very difficult.”

was changed to:

“This little thought experiment exposes the foolishness of addressing strategic issues using the inherently tactical conceptual framework of marginalist economics. Mainstream economists do so because they believe that it is better to have a poor measure of aggregate production than none at all.”

Chapter 5, Introduction, fourth paragraph, first sentence

“There are two major technical problems in measuring aggregate production.”

was changed to:

“Economists face two major technical problems in measuring aggregate production.”

Chapter 5, Introduction, fourth paragraph, last sentence

Changed “three thousand dollar” to “one thousand dollar.”

Chapter 5, Introduction, fifth paragraph

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“The information **revolution**’s ever increasing potential for rapid learning **exacerbates** both **of these measurement problems**. Because people living good lives learn more rapidly than people living poor lives, **efficiency in consumption is more important in economies with the potential for rapid learning than in economies without this potential**. Focusing on efficiency in consumption requires viewing consumer goods and services as means to a good life rather than ends in themselves. **Therefore**, the problem of measuring inputs rather than outputs is universal. Worse, measuring the satisfaction of **consumer** needs is far more difficult than measuring the satisfaction of consumer wants, **which economists are able to do by assuming that consumer preferences remain constant over the period under consideration.**”

was changed to:

“**Most mainstream economists recognize that** the information age’s **trend toward services exacerbates the first measurement problem and its trend toward ever higher quality exacerbates the second**. **Most do not recognize that its** ever increasing potential for rapid learning **worsens** both. **This is** because people living good lives learn more rapidly than people living poor lives. **Efficiency in consumption is more important in economies with the potential for rapid learning than in economies without this potential.**

“Focusing on efficiency in consumption requires viewing consumer goods and services as means to a good life rather than ends in themselves. The problem of measuring inputs rather than outputs is universal. Worse, measuring the satisfaction of **human** needs is far more difficult than measuring the satisfaction of consumer wants.”

Changes in Version 2004.02.12

Acknowledgments, fifth paragraph, sixth sentence

“Gordon apparently recognized that my inability to produce the required term paper was more due to profound frustration and confusion than to sloth.”

was deleted.

Afterword, second paragraph, last two sentences

“My curt answer is that **this question is not the most productive one to ask**. These industrial age terms are not the best tools for thinking about information age politics.”

was changed to:

“My curt answer is that these industrial age terms are not the best tools for thinking about information age politics.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Afterword, third paragraph

“Most of us fail to recognize that economic and political problems are part of the infinitely large ethical problem of how we, intelligent beings living now and in the future, pursue happiness. Failing to consider this strategic problem tends to blind us to the possibility of finding better tactical problems to solve. This leads to foolish decision-making, which in turn increases economic and political turbulence. A strategic plan for solving this universal (global) ethical problem would help us progress with the least amount of turbulence. Such a plan has the potential to unite thoughtful Americans on both sides of the prevailing political divide.”

was deleted.

Afterword, new third paragraph, first two sentences

“To understand how this may happen, one first needs to understand the nature of the American political divide. Two academics, “liberal” linguist George Lakoff and “conservative” economist Thomas Sowell, provide **credible** explanations.”

was changed to:

“Two academics, “liberal” linguist George Lakoff and “conservative” economist Thomas Sowell, provide **partial** explanations **of the current political divide.**”

Afterword, new sixth paragraph, first two sentences

“Lakoff’s and Sowell’s **analyses** are not as disparate as they first appear. Liberals break down the universal problem into smaller pieces than conservatives do.”

was changed to:

“Lakoff’s and Sowell’s **explanations** are not as disparate as they first appear. Liberals break down the universal problem **of how we live good lives** into smaller pieces than conservatives do.”

Afterword, new seventh and eighth paragraphs

“The 2000 presidential election highlighted this conflict of visions. From the liberal perspective, it was enough that people tried to vote rather than that they succeeded in doing what was necessary for their vote to be counted by machine. Further, getting Gore elected justified changing the rules during the process and advocating “cherry-picking” means for analyzing data that any reputable scientific journal would reject. In contrast, conservatives believed that voters who failed to follow instructions did not deserve to have their votes counted and that maintaining the integrity of the election process was more important than winning any election. Bush supporters were as upset

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

at the prospect of measuring voter intent using post-election standards as Gore supporters were at losing the election due to legal technicalities.

“How is the information revolution affecting conservatives and liberals? As the pace of change increases, thoughtful conservatives are finding they have to think more, and more clearly, about ultimate ends. Thoughtful liberals are finding the world filled with ever more complex and amorphous problems. In both cases, the press of events is forcing people to consider the means and ends of problem-solving/decision-making more fully.”

were deleted.

Afterword, new seventh through ninth paragraphs

“The key to bridging the chasm between conservatives and liberals is to recognize the essential nature of the progressive dynamic responsible for the United States’ success. This complex dynamic involves decentralized decision-making (“masculine” means) and an ever more-inclusive concept of justice (increasingly “feminine” ends). In short, the United States owes its greatness to its citizens’ free pursuit of progress toward a good life for all.

“The free pursuit of progress creates knowledge useful in living good lives. Useful knowledge differs from other resources in that using it does not deplete it. Further, the cost of replicating most useful knowledge is far less than that of creating it. The useful knowledge we create benefits us, others around the world, and future generations. When used to displace scarce resources used by other species, it also benefits other species. Regrettably, putting new knowledge to use creates economic turbulence. The worse the quality of decision-making is, the worse this turbulence will be.”

“Recognizing this dynamic exposes problems on both sides of the current political divide. For liberals, the major problem is that this dynamic requires “masculine” means. An ultimate end based on reverence for life requires unending progress, hence unending turbulence. Thriving under these conditions requires “masculine” qualities. A nanny state that protects its charges by eliminating change shuts down the dynamic. This is unjust to our future selves, other societies, future generations, and other species.”

were changed to:

“We can bridge the chasm between conservatives and liberals by recognizing that the United States owes its greatness to its citizens’ free pursuit of progress toward a good life for all. The useful knowledge we create benefits us, others around the world, and future generations. When used to displace scarce resources used by other species, it also benefits other species. Regrettably, putting new knowledge to use creates economic turbulence. The worse the quality of decision-making is, the worse this turbulence will be.

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“Recognizing this dynamic **process** exposes problems on both sides of the current political divide. For liberals, the major problem is that **an** ultimate end based on reverence for life requires unending progress, hence unending turbulence. Thriving under **turbulent** conditions requires “masculine” qualities. A nanny state that protects its charges by eliminating change shuts down **progress**. This is unjust to our future selves, other societies, future generations, and other species.”

Afterword, new ninth paragraph, first sentence

“For conservatives, the major problem is that the dynamic continues only if each generation chooses increasingly inclusive ends.”

was changed to:

“For conservatives, the major problem is that the dynamic **process** continues only if each generation chooses increasingly inclusive (**“feminine”**) ends.”

Changes in Version 2004.02.14

Chapter 1, Modern Economics’ Blind Spot, seventh paragraph, first sentence

“**This** marginalist model of the setup procedure **implicitly** assumes that **we** do not learn through experience.”

was changed to:

“**Whether managers who use** this marginalist model of the setup procedure **recognize it or not, they** assume that **production team members** do not learn through experience.”

Chapter 3, *Divine Law*, first paragraph, last two sentences

“For example, the most simple and straightforward theories for explaining the creation of the universe **assume the existence of** a Creator. **Occam’s razor cuts both ways.**”

were changed to:

“For example, the most simple and straightforward theories for explaining the creation of the universe **include** a Creator.”

Chapter 6, Conclusion, second paragraph, first sentence

Changed “assume” to “include the assumption.”

Chapter 7, first paragraph, last sentence

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Changed “to satisfy” to “of satisfying.”

Afterword, third paragraph, third sentence

“Liberals want government to **treat citizens** like nurturing mothers **raise their children,** **while conservatives want governments to treat citizens** like strict **fathers raise theirs.**”

was changed to:

“Liberals want governments to **be more** like nurturing mothers **than** like strict fathers.”

Afterword, last paragraph

“**This tradition of freedom and progress is the essence of American idealism. Its** supporters are those who seek to maintain the dynamic process that made the United States great (**process conservatives**). **Its** enemies are those who seek to gain government favors at the expense of progress (special interests), impose their vision on others (authoritarians), maintain the current state of the world for its own sake (state-of-the-world conservatives), and consider liberty an end in itself rather than a means to justice (libertarians).”

was changed to:

“Supporters **of this tradition of freedom and progress (process conservatives)** seek to maintain the dynamic process that made the United States great. **Enemies of this tradition** are those who seek to gain government favors at the expense of progress (special interests), impose their vision on others (authoritarians), maintain the current state of the world for its own sake (state-of-the-world conservatives), and consider liberty an end in itself rather than a means to justice (libertarians). *Wealth in the Information Age is liberal progressive, classically liberal in means and progressive in ends.*”

Changes in Version 2004.02.16

Chapter 1, *Managerial Excellence in Means*, second paragraph, third through fifth sentences

“**Any behavior that does not fit their concept of efficiency is deemed to be “irrational” and any behavior that does fit this concept is deemed to be “rational.”** Thus, “rational” people are those **that** are efficient at satisfying their wants. In contrast, we commonly use ‘wise’ to describe those people **that** are not only “rational,” but also want the “right” things.”

were changed to:

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

““Rational” people are those **who** are efficient at satisfying their wants. In contrast, we commonly use ‘wise’ to describe those people **who** are not only “rational,” but also want the “right” things.”

Chapter 6, Introduction, first paragraph, first two sentences

“The normative end of government is **administering** justice. From **the** recursionist perspective **put forth in this work**, government policy makers administer justice by deciding who makes what decisions under what incentives.”

were changed to:

“The normative end of government is justice. **A marginalist view of government tends to blind us to the possibility of increasing justice by increasing practical wisdom. Marginalist economics concerns self-interest, not ever more enlightened self-interest.**

“From **a decision-oriented** recursionist perspective, government policy makers administer justice by deciding who makes what decisions under what incentives.”

Afterword, first paragraph, fifth sentence

“When I discuss it with business and military leaders **that** topic is the importance of culture and strategic vision in “fast” organizations, especially the need to **improve Colonel John Boyd’s OODA (observation-orientation-decision-action)** loop performance with strategic asset building loops.”

was changed to:

“When I discuss it with business and military leaders, **the** topic **of interest** is the importance of culture and strategic vision in “fast” organizations, especially the need to **bolster** observation-orientation-decision-action (OODA) loop performance with strategic asset building loops.”

Afterword, fourth and fifth paragraphs

“In *A Conflict of Visions, Ideological Origins of Political Struggles*, Sowell describes the difference in terms of how each side views the size of problems relative to our human ability to solve them. **Liberals see the world filled with relatively simple problems that are not being solved. Accordingly, they desire to give government officials who recognize the problems they see so clearly the power to solve them. In contrast, conservatives see the world filled with relatively complex and amorphous problems, which are best solved through decentralized decision-making. Consequently, they believe that markets and local governments provide better solutions than central governments.**

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“For example, several years ago there was a series of commuter airline crashes. Liberals asked why commuter airlines were not subject to the same regulations as major airlines. Conservatives asked a bigger question, would the additional regulatory burden proposed by the liberals save lives? The new regulations would make flying commuter airlines more expensive, which would cause some people to switch from flying to driving. Driving is much more dangerous than flying. Would more regulation result in more highway deaths than it saved by preventing airline crashes? **Some conservatives ask an even larger question, is government regulation necessary?**”

were changed to:

“In *A Conflict of Visions, Ideological Origins of Political Struggles*, Sowell describes the difference in terms of how each side views the size of problems relative to our human ability to solve them. **C**onservatives see the world filled with relatively complex and amorphous problems, which are best solved through decentralized decision-making. For example, several years ago there was a series of commuter airline crashes. Liberals asked why commuter airlines were not subject to the same regulations as major airlines. Conservatives asked a bigger question, would the additional regulatory burden proposed by the liberals save lives? The new regulations would make flying commuter airlines more expensive, which would cause some people to switch from flying to driving. Driving is much more dangerous than flying. Would more regulation result in more highway deaths than it saved by preventing airline crashes?”

Afterword, new sixth paragraph, second sentence

“The useful knowledge we create benefits us, others around the world, and future generations.”

was changed to:

“The useful knowledge **that** we create **by pursuing this dynamic process** benefits us, others around the world, and future generations.”

Changes in Version 2004.02.20

Preface, last paragraph, third to last sentence

“Today, the Toyota production system demonstrates the wisdom of pursuing the virtuous circle of increasing excellence in **consumption** and increasing excellence in **production and trade.**”

was changed to:

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“Today, the Toyota production system demonstrates the wisdom of pursuing the virtuous circle of increasing excellence in **production and trade** and increasing excellence in **consumption**.”

Acknowledgments, sixth paragraph, first two sentences

“I would **also** like to thank Daniel Brophy, John Swanson, Patrika Vaughn, James Fox, and Jeanmarie Hendry for their unwavering enthusiasm and for criticizing countless drafts. **Finally**, I would like to thank the many others who have contributed to this work over the years.”

were changed to:

“I would like to thank Daniel Brophy, John Swanson, Patrika Vaughn, **Lucile Harris**, James **Rogers** Fox, and Jeanmarie Hendry for their unwavering enthusiasm and for criticizing countless drafts. I **also** would like to thank the many others who have contributed to this work over the years.”

Chapter 2, *Theories are refinements of everyday thinking.*, last paragraph, third sentence

“However, **Newton’s discovery that calculating the trajectories of the earth, moon, and sun was practically impossible would have prevented us from** enshrining Newton’s theories as the sacred truth as Alexander Pope did when he wrote:

Nature and Nature’s laws lay hid in night:
God said, “Let Newton be!” and all was light.”

was changed to:

“However, **we would not have** enshrined Newton’s theories as the sacred truth as Alexander Pope did when he wrote:

Nature and Nature’s laws lay hid in night:
God said, “Let Newton be!” and all was light.”

Chapter 2, *Theories are refinements of everyday thinking.*, last paragraph, third to last sentence

“Today, scientists **recognize Newton’s “three body problem” to be a deterministic chaotic system.** The universe is not as predictable as those who worshipped at Newton’s shrine believed it to be.”

was changed to:

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“Today, scientists **know that** the universe is not as predictable as those who worshipped at Newton’s shrine believed it to be.”

Chapter 2, *Refining Recursionist Explanations*, title

Changed “*Explanations*” back to “*Theories*.”

Chapter 3, *Sacrifice versus Prudence*, second paragraph, fifth sentence

Changed “They” to “The wise.” Added paragraph break at the end of the sentence.

Chapter 4, *Trade*, last paragraph, last sentence

“Information age economies need people ruled by lucidity for their moral virtues as well as for their intellectual ones.”

was deleted.

Chapter 6, *Introduction*, second paragraph, first sentence

“From a **decision-oriented** recursionist perspective, government policy makers administer justice by deciding who makes what decisions under what incentives.”

was changed back to:

“From **the** recursionist perspective **put forth in this work**, government policy makers administer justice by deciding who makes what decisions under what incentives.”

Chapter 7, throughout

Changed “recursionist explanations” back to “recursionist theories.”

Chapter 7, first paragraph, second and third sentences

“To progress readily, we need recursionist theories, loose evolutionary explanations of means founded on teleonomic theories. Over time, we can tighten **these loose** explanations by discovering more about our needs and the best means of satisfying them.”

was changed to:

“To progress readily, we need recursionist theories, **theories that produce** loose evolutionary explanations of means founded on teleonomic theories **of ends**. Over time, we can tighten **recursionist theories and the** explanations **they produce** by discovering more about our needs and the best means of satisfying them.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Chapter 7, last paragraph, first sentence

Changed “recursionist theories” to “recursionist economics.”

Changes in Version 2004.02.25

Chapter 3, *Sacrifice versus Prudence*, first two paragraphs

“Mystics of many faiths believe that the temporal worldly end of mystical oneness with the infinite Being during life is necessary to achieve the ultimate end of mystical oneness with the infinite Being after life. Given this belief, a life well lived must include the temporal worldly end of mystical oneness. There is no logical conflict between achieving this temporal end and the normative end of revering life. Indeed, **they can** complement one another. However, there are practical conflicts between these potentially complimentary ends **in that they** compete for the same scarce resources.

“Some means of achieving mystical oneness sacrifice safety or health in order to economize on **other** scarce resources. Most successful religions include beliefs that serve to check these extreme means. Examples include the belief that (1) we have as many lifetimes as it takes to achieve mystical union, (2) we can achieve the ultimate end of existence in an existence after death (e.g., purgatory), and (3) we can achieve the ultimate end of existence through revering life as well as through the temporal end of mystical union. As Maslow observed, healthy religions balance the Dionysian (emotional) and Apollonian (reasonable) means to mystical experience.¹² **The wise seek life-affirming transformations prudently.**”

were changed to the following new paragraph:

“Mystics of many faiths believe that the temporal worldly end of mystical oneness with the infinite Being during life is necessary to achieve the ultimate end of mystical oneness with the infinite Being after life. Given this belief, a life well lived must include the temporal worldly end of mystical oneness.

“There is no logical conflict between achieving the temporal end **of mystical oneness** and the normative end of revering life. Indeed, these two ends **usually complement** one another. However, there are **very real** practical conflicts. **These two ends** compete for the same scarce resources.

“Some means of achieving mystical oneness sacrifice safety or health in order to economize on scarce resources. Most successful religions include beliefs that serve to check these extreme means. Examples include the belief that (1) we have as many lifetimes as it takes to achieve mystical union, (2) we can achieve the ultimate end of existence in an existence after death (e.g., purgatory), and (3) we can achieve the

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

ultimate end of existence through revering life as well as through the temporal end of mystical union. As Maslow observed, healthy religions balance the Dionysian (emotional) and Apollonian (reasonable) means to mystical experience.¹² *The wise seek life-affirming transformations prudently.*”

Chapter 3, *Sacrifice versus Prudence*, new sixth paragraph

“The decision to die heroically is far too important to be guided by ritual. Only fools and knaves **would** ritualize heroic death. We owe it to ourselves to understand the ignorance at the heart of all forms of ritual death.”

was changed to the following new paragraph:

“The decision to die heroically is far too important to be guided by ritual. Only fools and knaves ritualize heroic death. We owe it to ourselves to understand the ignorance at the heart of all forms of ritual death.”

Note: this paragraph had been deleted accidentally from the Adobe Acrobat versions of the work.

Changes in Version 2004.02.27

Acknowledgments, second paragraph, first sentence

“The second is the late Howard Sherman, former counterintelligence agent, philosophy professor, corporate executive, entrepreneur, and **business consultant.**”

was changed to the following new paragraph:

“The second is the late Howard Sherman, former **OSS** counterintelligence agent, philosophy professor, **Midas** executive, **Supercuts** entrepreneur, and **founder of the Santa Fe Center for Emergent Strategies.**”

Chapter 3, *Ultimate Normative Ends of Life*, first paragraph, second sentence, footnote

“² Some humanists believe that this statement is self-evident. This is to say that we cannot imagine a case in which the ultimate normative end of human life is living a good life as defined by our internal programming is false. We don’t need to imagine such a case. History is filled with examples of prophets claiming that achieving particular temporal ends is not only the best way but also the only way to live a good life. (Living a good life must include all temporal ends necessary to achieve the ultimate end of human existence.)”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

was deleted.

Chapter 3, *Practical Benefits of Magical Mysticism*, seventh paragraph

The phrase, “**to inquiry**,” was deleted from the first sentence. This paragraph was appended to the sixth paragraph.

Chapter 3, *Practical Benefits of Magical Mysticism*, last paragraph

“Not all transformations in belief systems involving altered states of consciousness are spontaneous. Religious orders, cults, militaries, professional schools, graduate schools, and political re-education centers have long used altered states of consciousness to indoctrinate people. The indoctrination procedure consists of memorizing prescribed material, inducing an altered state of consciousness, and testing the resulting belief system. Inducing an altered state of consciousness strong enough to change belief systems requires breaking the stream of words that define normal consciousness. Techniques include the use of drugs, extreme fear, extreme fatigue, extreme pain, extreme (ecstatic) activity, deprivation, and meditation.”

was deleted.

Chapter 3, *Divine Law and Sacrifice versus Prudence*

Reversed order of these two subsections.

Changes in Version 2004.02.28

Chapters 1, 5, 7, and the Afterword

Changed “modern econ...” to “mainstream econ... .”

Chapters 1, *Managerial Excellence in Means*, second paragraph

Changed “marginalist economist” to “mainstream economist.”

Chapters 1, *Managerial Excellence in Means*, second paragraph, second to last sentence

“The “wise” choice is not to smoke, **which is an alternative that marginalist economics ignores.**”

was changed to:

“The “wise” choice is not to smoke.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Chapter 2, *Theories produce predictions and explanations.*, fourth paragraph, last three sentences

“In contrast, explanations help us find better problems to solve. In decision analysis terms, we use predictions to assign probabilities to uncertain events and explanations to help us draw decision trees. Better predictions help us become more *efficient* and better explanations help us become more *effective*.”

was changed to:

“In contrast, explanations help us find better problems to solve, which helps us formulate alternatives. Better predictions help us become more *efficient* and better explanations help us become more *effective*.¹”

plus the footnote:

¹“In decision analysis terms, better predictions improve the quality of a given decision tree structure and better explanations improve the structure of the decision tree.”

Chapter 2, Refining Recursionist Theories, footnote 4

Changed “mainstream marginalist” to “mainstream.”

Chapter 2, Practical Wisdom and Moral Science, fourth paragraph, second sentence

Changed “mainstream (marginalist)” to “mainstream.”

Chapter 2, Practical Wisdom and Moral Science, fourth paragraph, third sentence

Changed “marginalist economics” to “mainstream economics.”

Chapter 3, Eliminating Unethical Theories, second paragraph

Inserted the paragraph:

“From the materialist perspective, our brains are like freestanding personal computers. Our minds stop functioning when our brains stop functioning. From the dualist perspective, our brains are like intelligent terminals connected to a computer network. Part of us continues after our brains stop functioning.”

Chapter 3, *Ultimate Normative Ends of life*, third paragraph, third sentence

“Maslow referred to these either as “deficiency needs,” because a lack of the goods that satisfies these needs prevents us from being fully human, or as “becoming needs,” because they are the needs we feel as we are becoming fully human.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

was changed to:

“We feel these “becoming needs” when we are becoming fully human.”

Chapter 3, *Ultimate Normative Ends of Life*, fourth paragraph, second sentence

“He referred to this as “being needs,” because they are the needs that motivate “fully human” people.””

was changed to:

“We feel these “being needs” only after we have become fully human.”

Chapter 3, *Ultimate Normative Ends of Life*, fourth paragraph, third sentence

“He found that these people seek to make the most of their talents in pursuit of goals that concern the transcendent values of truth, beauty, and the good (justice).”

was changed to:

“He found that these people seek to make the most of their talents in pursuit of goals that concern such transcendent values as truth, beauty, and goodness.”

Chapter 3, *Ultimate Normative Ends of Life*, fifth paragraph

“By definition, human needs are universal, which is to say that they are independent of belief. Maslow recognized the role of belief in satisfying “being needs,” but ignored its role in satisfying “becoming needs.” Belief actually plays a role in satisfying even the most basic needs: the belief that one is in mortal danger can lead to panic, which increases the need for oxygen. Belief plays a relatively small part in satisfying physiological needs, a larger one in satisfying mental needs, and a major role in satisfying spiritual needs. In general, the higher (less immediate) the need, the more important the role of belief is in satisfying it.”

was changed to:

“By definition, human needs are universal, which is to say that their existence is independent of belief. This is not to say that they are independent of belief. Belief plays a role in satisfying our most basic physical needs: the belief that we are in mortal danger may lead to panic, which increases our need for oxygen. Belief plays a larger role in satisfying our mental needs and a major role in satisfying our spiritual needs. In general, the higher (less immediate) the need, the more important the role of belief is in satisfying it.”

Chapter 3, *Ultimate Normative Ends of Life*, eleventh paragraph, last sentence

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“It is this need that Maslow’s self-actualizers seek to satisfy when they seek **the transcendent values of the** truth, beauty, and **the** good.”

was changed to:

“It is this need that Maslow’s self-actualizers seek to satisfy when they seek truth, beauty, and **goodness.**”

Chapter 3, *Practical Benefits of Magical Mysticism*, third paragraph, last sentence

Changed “practical benefit of magical mysticism” to “practical benefit.”

Chapter 3, *Practical Benefits of Magical Mysticism*, seventh paragraph

“We experience this elevation in consciousness when we laugh at **a** joke that plays on inconsistencies in our **belief systems, especially when they play on underlying** concepts. We laugh when a child asks why freedom fighters fight freedom. We also laugh when the three stooges throw away **artwork described as being priceless** because they confuse being priceless with being worthless. This laughter briefly lifts us out of our normal state of consciousness. Chan (Zen) **Buddhist** masters have long **used this insight to elevate the consciousness of their students in the hope of triggering enlightenment.**”

was changed to:

“We experience this elevation in consciousness when we laugh at **jokes** that play on inconsistencies in our **conceptual frameworks**. We laugh when a child asks “Why do freedom fighters fight against freedom?” We also laugh when the three stooges throw away **“a priceless vase”** because they confused being priceless with being worthless. Chan (Zen) masters have long **told such jokes to their students in the hope of stopping the stream of words that defines normal consciousness.**”

Chapter 3, *Sacrifice versus Prudence*, second paragraph, last sentence

“**These two** ends compete for **the same** scarce resources.”

was changed to:

“The **temporal end of mystical oneness and normative end of reverence for life** compete for scarce resources, **especially for time.**”

Chapter 3, *Sacrifice versus Prudence*, third paragraph, last sentence

“*The wise seek life-affirming transformations prudently.*”

was deleted.

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Chapter 3, *Sacrifice versus Prudence*, sixth and seventh paragraphs

These two paragraphs were merged.

Chapter 3, *Sacrifice versus Prudence*, footnote 10

Changed “1962” to “2003.”

Changes in Version 2004.03.01

Chapter 4, Trade, third paragraph

Inserted the subtitle “*Trust.*”

Chapter 4, *Three Common Misbeliefs*, first paragraph, second through fourth sentences

“The most important of these is the belief that the means of trade **cannot be improved**. This **cultural blindness was evident in many early American attempts to adopt the Toyota Production System**. Most American manufacturers perceived **this** system as a collection of techniques for minimizing WIP inventory.”

were changed to:

“The most important of these is the belief that **we cannot improve** the means of trade. This **belief tends to blind us to the potential of improving the means of trade. Failing to see this potential in turn tends to blind us to other means of increasing excellence in means. For example, most American manufacturers originally perceived the Toyota Production System not as a learning-by-doing strategy but rather** as a collection of techniques for minimizing WIP inventory.”

Chapter 4, *Three Common Misbeliefs*, first paragraph, last sentence

“The Toyota system is much more than **simply** minimizing WIP inventories.”

was changed to:

“The Toyota system is much more than **a collection of techniques** for minimizing WIP inventories.”

Chapter 4, *Three Common Misbeliefs*, second through fifth paragraphs

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Switched the second and third common misbeliefs by moving these paragraphs to the end of the subsection and renumbering the misbeliefs in first sentence of the new second and new fourth paragraphs.

Chapter 4, *Three Common Misbeliefs*, new sixth paragraph, first two sentences

“In business as in sports, competition **creates the need to increase useful knowledge**. **For example**, consumers in the former Soviet Union wasted billions of hours annually in stores that made them stand in line three times to make a purchase: once to select an item, a second time to pay for it, and a third to collect it.”

were changed to:

“In business as in sports, competition **often increases cooperation**: **C**onsumers in the former Soviet Union wasted billions of hours annually in stores that made them stand in line three times to make a purchase: once to select an item, a second time to pay for it, and a third to collect it.”

Chapter 4, *Three Common Misbeliefs*, new last paragraph

“The relationship between competition and cooperation suggests that a good way to achieve greater cooperation is to promote competition. We see this when people in firms under competitive pressure pull together. It also suggests that decreasing competition leads to a breakdown in cooperation, as happens when firms that come to dominate their industry become bureaucratic.”

was deleted.

Chapter 5, *A Simple Model of Progress and Turbulence*, last paragraph, end

Added the sentence:

“We ought to learn to thrive in winds and survive in gales of creative destruction.”

Changes in Version 2004.03.03

Acknowledgments, second paragraph, last sentence

Changed “Great Books’ humanism” to “self-evident truth.”

Chapter 1, *Modern Economics' Blind Spot*, fourth paragraph, second sentence

Changed “In mainstream economics” to “In mainstream (Neoclassical) economics.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Chapter 2, footnote 7, last two sentences

“(The “piling up” of intrinsic errors tends to pull us away from “attractors” that “emerge” from our teleonomic programming.) Model quality tends to vary directly with the first tendency and inversely with the second. This explains why speculative bubbles are the exception rather than the rule.”

were changed to:

“Lao Tzu wrote: “The Way that can be known is not the true Way. / The Way that can be walked is not the everlasting Way.” In chaos theory terms, the “piling up” of intrinsic errors tends to pull us away from “attractors” that “emerge” from our teleonomic programming. Model quality tends to vary directly with the first tendency and inversely with the second. This explains why **large** speculative bubbles are the exception rather than the rule.”

Chapter 3, *Ultimate Normative Ends of Life*, fifth paragraph, first two sentences

“By definition, human needs are universal, which is to say that *their existence is independent of belief*. This is not to say that *they are independent of belief*. Belief plays a role in satisfying our most basic physical needs: the belief that we are in mortal danger may lead to panic, which increases our need for oxygen.”

were changed to:

“Belief plays a role in satisfying **even** our most basic human needs: the belief that we are in mortal danger may lead to panic, which increases our need for oxygen.”

Chapter 3, *Practical Benefits of Magical Mysticism*, last four paragraphs

“The experience **of the transcendent state** of mystical oneness **by means of magical mysticism** may result in a more integrated, coherent, and useful belief system. **This more useful belief system may in turn result in a permanently higher state of being.**

“We commonly associate this **sort of change in belief system** with **spontaneous religious conversions in which the transcendent experience precedes the change in beliefs**. These experiences raise thorny metaphysical issues concerning revealed truth, which make them relatively inaccessible to inquiry. More accessible are **major epiphanies in which the changes in beliefs precede or accompany transcendent experience. The classic example is the exhilaration Archimedes felt upon understanding the relationship between the volume of his body, the volume of water displaced by his body, and the density of his body relative to that of water. These major epiphanies raise the question of whether a small change in beliefs elevates consciousness, which in turn triggers further changes in beliefs.**

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“We experience this elevation in consciousness when we laugh at jokes that play on inconsistencies in our conceptual frameworks. We laugh when a child asks “Why do freedom fighters fight against freedom?” We also laugh when the three stooges throw away “a priceless vase” because they confused being priceless with being worthless. Chan (Zen) masters have long told such jokes to their students in the hope of stopping the stream of words that defines normal consciousness.

“If changes in belief systems, especially in the meaning of concepts, elevate consciousness and the increased clarity and energy of elevated consciousness encourages further changes in beliefs, then it may be useful to think of major epiphanies as avalanches that release stress within belief systems. Changing a single anomaly in a belief system rife with anomalies may trigger massive changes.”

were changed to:

“Further, the experience of mystical oneness may result in a more integrated, coherent, and useful belief system. We commonly associate these experiences with religious conversions. More amenable to analysis are epiphanies triggered by worldly events, e.g., Archimedes’s interrupted bath. Such epiphanies raise many questions about the complex interplay of changes in belief systems, world-view, and consciousness.”

“Changes in belief systems, especially in the meaning of concepts, can elevate consciousness. We experience this elevation in consciousness when we laugh at jokes that play on inconsistencies in our conceptual frameworks. We laugh when a child asks “Why do freedom fighters fight against freedom?” We also laugh when the three stooges throw away a priceless vase because they confused being priceless with being worthless. The increased clarity and energy of elevated consciousness can trigger further changes in beliefs. Thus, a small event can trigger an avalanche of change that produces the illusion of being magically transported to a new world.”

Changes in Version 2004.03.05

Chapter 1, Mainstream Economics' Blind Spot, fifth paragraph, first sentence

Changed “this marginalist model of the setup procedure” to “the EOQ model.”

Chapter 2, Refining Recursionist Theories, end

Added the footnote:

“⁷ Pragmatists focus on means. Idealists define ultimate ends. Pragmatic idealists refine ultimate ends.”

Chapter 2, Practical Wisdom and Moral Science, third paragraph, third sentence

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Changed “our intellectual models” to “these models.”

Chapter 3, Eliminating Unethical Theories, first paragraph, third sentence

Changed “all of our elements” to “all parts of us.”

Chapter 3, *Ultimate Normative Ends of Life*, fourth paragraph, first sentence

Changed “Belief plays” to “Our beliefs about reality play.”

Chapter 3, *Ultimate Normative Ends of Life*, fourth paragraph, second sentence

Changed “Belief plays” to “Our beliefs play.”

Chapter 3, *Ultimate Normative Ends of Life*, fourth paragraph, third sentence

Changed “the role of belief is ” to “our beliefs are.”

Chapter 3, *Practical Benefits of Magical Mysticism*, first paragraph, second sentence

Changed “Schweitzer” to “he.”

Chapter 3, *Practical Benefits of Magical Mysticism*, first paragraph, last sentence

“We also see this in Islam with the withering away of Sufism over the last several hundred years.”

was changed to

“In Islamic thought, we see this trend in the withering away of Sufism.”

Chapter 3, *Practical Benefits of Magical Mysticism*, second paragraph, first sentence

Changed “are likely to interpret” to “interpret.”

Chapter 3, *Practical Benefits of Magical Mysticism*, last paragraph, last sentence

“Thus, a small event can trigger an avalanche of change that produces the illusion of being magically transported to a new world.”

was changed to

“Thus, a small event can trigger an avalanche of change that produces the illusion of being magically transported to a new mental world. This magical process involves suspending the stream of words that rivets our consciousness to our mental worlds.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Chapter 3, *Sacrifice versus Prudence*, first paragraph, last sentence

Changed “temporal **worldly** end” to “temporal end.”

Chapter 6, *Sacrifice versus Prudence*, first paragraph, last sentence

Changed “Recursionist **monetary policy seeks**” to “Recursionists **seek**.”

Changes in Version 2004.03.08

Chapter 4, *Pleasure and Pain*, first paragraph, fourth through seventh sentences

“Some pleasurable activities are bad and some painful activities are good for us. Gluttony is pleasurable but unhealthy, and learning to perform a good activity is often painful. Further, activities that are good are not always pleasurable and activities that are bad are not always painful. Exercise is often boring and exposure to too much sunshine is not immediately painful.”

was changed to

“**For example**, exposure to too much sunshine is not immediately painful.”

Chapter 4, *Pleasure and Pain*, second paragraph, second and third sentences

Changed “acting” to “an activity.”

Chapter 4, *Pleasure and Pain*, third paragraph, second to last sentence

“Complete pleasure-in-acting, **total involvement in activity, is** ecstasy.”

was changed to

“Complete pleasure-in-acting, ecstasy, **is a matter of completely losing ourselves in activity.**”

Chapter 4, *Pleasure and Pain*, fifth paragraph, fourth sentence

“Deriving pleasure from other activities can require making **an** investment in **training**, material goods, **or learning.**”

was changed to

“Deriving pleasure from other activities can require making investments in **knowledge or** material goods.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Chapter 4, *Practical Wisdom*, first paragraph, first sentence

Changed “well **spent**” to “well **lived**.”

Chapter 4, *Pleasure and Pain*, second paragraph

“Like other forms of useful knowledge, practical wisdom is an inexhaustible resource. Like most other forms of human knowledge, using it enhances it. We develop and reinforce the habit of acting wisely by acting wisely.”

was deleted.

Chapter 4, *Practical Wisdom*, third through tenth paragraphs

“To understand what practical wisdom is and how we can develop it, we must know something about how we process information. We receive, store, manipulate, and use information. We receive information through our perceptual and motor senses; store it as experiential memories, motor skills, and conceptual beliefs; manipulate it through pattern recognition and logic; and use it in acting and communicating.

“We process information using both intellect and sense. Intellect concerns manipulating concepts; sense concerns all other information processing. Intellect includes logic, conceptual intuition, conceptual memory, and language. Sense includes perception, perceptual (experiential) memory, perceptual intuition, motor sense, motor memory, motor intuition, and non-language forms of communication.

“Our five senses receive information about the world and interpret this information through perceptual pattern recognition. When we sense something lightly touching us, we recognize the pattern of sensation as a twig, clothing, or an insect. We learn to recognize such patterns of sensations through experience. Perceiving is partly conscious and partly unconscious. If we concentrate on perceiving, we can become more conscious of what we perceive, but we can never be conscious of how we perceive.

“We store memories and emotions in perceptual memory. Perceptual intuition recognizes patterns in perceptions and memory. It is also partly conscious and partly unconscious. We can be conscious of those similarities that create patterns, but we can never be fully conscious of how we recognize them. Our motor sense initiates action and our motor and perceptual senses provide necessary feedback to control our actions. We learn to initiate and control most actions. Acting is also partly conscious and partly unconscious. We can be conscious of willing to act and of acting, but we can never be fully conscious of how we initiate or control our actions. Our knowledge of how to act is stored as motor skills in memory. Motor intuition recognizes patterns in sensations and memory to allow us to combine motor skills in new ways. Again, we can never be fully conscious of how our motor intuition combines existing skills into new ones.

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“We store conceptual information as beliefs. We link individual beliefs together to form structures of related beliefs, and these structures form a complex system of beliefs. An individual belief may or may not be empirically true. A belief is empirically true if it accurately corresponds to our sense experiences.

“We manipulate concepts by applying logical rules. Reasoning includes theorization, deduction (logical deliberation), and logical judgment. To theorize is to build conceptual models; to deduce is to draw conclusions from such models; and to judge logically is to decide whether to accept a model or belief by using rules for judging these things. Unlike other human information processing, reasoning can be a completely conscious process. We are usually conscious of how we use rules to manipulate concepts and can demonstrate this process to others.

“We also manipulate concepts by recognizing patterns. Conceptual intuition includes induction, intuitive deliberation, and intuitive judgment. Induction is the creation of universals from particulars through pattern recognition. Intuitive deliberation is the process of selecting the best conceptual model for logical deliberation. Intuitive judgment is deciding whether to accept a model or belief based on whether it fits our belief system. If a model’s conclusion or a belief does not fit our belief system, we use conceptual intuition to discover why it does not fit.

“We also manipulate concepts by recognizing patterns. Conceptual intuition includes induction, intuitive deliberation, and intuitive judgment. Induction is the creation of universals from particulars through pattern recognition. Intuitive deliberation is the process of selecting the best conceptual model for logical deliberation. Intuitive judgment is deciding whether to accept a model or belief based on whether it fits our belief system. If a model’s conclusion or a belief does not fit our belief system, we use conceptual intuition to discover why it does not fit.”

were deleted.

Chapter 4, *Pleasure and Pain*, new third paragraph, second sentence

“There are three basic means of choosing ends and means wisely: deliberation, decision rules, and discipline.”

was changed to

“There are three basic means of choosing ends and means wisely: (1) deliberation, (2) decision rules, and (3) discipline.”

Chapter 4, *Deprivation and Practical Wisdom*

Deleted title. Appended paragraph to preceding subsection.

Chapter 4, *Pursuing Happiness*, title

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Changed “*Pursuing Happiness*” to “*Two Means of Pursuing Happiness.*”

Chapter 4, *Two Means of Pursuing Happiness*, first two paragraphs

“Pursuing happiness is a matter of satisfying our needs justly and efficiently over our lifetimes. Aristotle and Spinoza provide us with two different means of doing this. Where Aristotle asks us to look for practical wisdom in the example of others, Spinoza asks us to look into ourselves.

“Aristotle believed that moral virtue concerns the habit of wanting the right things. He determined moral virtue by examining the characteristics of the wise and defined these in terms of emotions or actions. Associated with all except curiosity are one virtue and two vices. The virtue is having the proper amount of the characteristic, while the vices are having either too little or too much. From the emotion of confidence stems the virtue of courage and the vices of cowardice and recklessness. Similarly, from the act of giving stems the virtue of generosity and the vices of stinginess and extravagance. We develop moral virtue by acting as if we want the right things, thereby developing the habit of wanting them.”

were changed to

“Aristotle and Spinoza provide us with different means of pursuing happiness. Aristotle asks us to look for moral virtue in others. Spinoza asks us to look into ourselves.

“Aristotle believed that moral virtue concerns the habit of wanting the right things, which we develop by acting as if we want the right things. He determined moral virtue by examining the characteristics of the wise. He defined these characteristics in terms of emotions or actions. With one exception, he associated each of these characteristics with one virtue and two vices. The virtue is having the proper amount of the characteristic. The vices are having either too little or too much. The emotion of confidence yields the virtue of courage and the vices of cowardice and recklessness. The action of sharing yields the virtue of generosity and the vices of stinginess and extravagance. The exception is to this "golden mean" rule is curiosity: Aristotle believed that we can never have too much knowledge.”

Chapter 4, *Two Means of Pursuing Happiness*, fourth paragraph, first sentence

Changed “approach to happiness” to “means of pursuing happiness.”

Chapter 4, *Two Means of Pursuing Happiness*, fourth paragraph, last sentence

Changed “its Einsteins” to “the world’s Einsteins.”

Chapter 4, *Alternatives to Pursuing Happiness*, second paragraph, first three sentences

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“Those who pursue nothing **more or less satisfy their needs by** following their traditions or leaders. **Their behavior may be due to ignorance, sloth, cowardice, or illness.** Because they **do not often** consider whether their actions are just or efficient, they tend to develop even less practical wisdom than do those who pursue pleasure.”

were changed to

“Those who pursue nothing **blindly** follow their traditions or leaders. Because they **seldom** consider whether their actions are just or efficient, they tend to develop even less practical wisdom than do those who pursue pleasure.”

Chapter 4, *Alternatives to Pursuing Happiness*, last paragraph

“We can also see this distinction in Taoism. **Here**, yin corresponds to **dark inertia** (pleasure-in-being / **joy**); yang corresponds to **passion** (pleasure-in-acting / **pleasure**); and the balance of yin and yang corresponds to **lucidity** (pursuing **the virtuous circle of pleasure and joy**).”

was changed to

“We can also see this distinction in Taoism: yin corresponds to pleasure-in-being (**dark inertia**); yang corresponds to pleasure-in-acting (**passion**); and the balance of yin and yang corresponds to pursuing happiness (**lucidity**).”

Chapter 4, *Trade*, second paragraph, last sentence

“In general, the shorter or more uncertain the expected life of the trading relationship, the more attractive **fluid** (low fixed cost) relationships will be.”

was changed to

“In general, the shorter or more uncertain the expected life of the trading relationship, the more attractive low fixed cost relationships will be.”

Chapter 4, *Production*, end

Added the sentence:

“(See Appendix: The Toyota System.)”

Chapter 5, *Introduction*, fifth paragraph, last two sentences

“This is because **people living good lives learn more rapidly than people living poor lives.** Efficiency in consumption is more important in economies with the potential for rapid learning than in economies without this potential.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

were changed to

“This is because efficiency in consumption is more important in economies with the potential for rapid learning than in economies without this potential. **The better people live, the faster they tend to learn.**”

Chapter 5, Introduction, seventh paragraph, last sentence

“**In recursionist terms**, they discourage progress from increasing excellence in means.”

was changed to

“**T**hey discourage progress from increasing excellence in means.”

Chapter 5, Increasing Excellence, second paragraph, last sentence

“However, we can predict that increasing the flow of information will tend to increase the amount of knowledge usefully applied.”

was deleted.

Chapter 5, Economic Viscosity, second paragraph, first sentence

Changed “concepts” to “**moral vision (and related concepts)**.”

Chapter 5, Economic Viscosity, fourth paragraph, last sentence

Changed “Keynes’s” to “**John Maynard Keynes’s**.”

Chapter 6, Decentralization, first paragraph, first sentence

Changed “efficiently” to “wisely.”

Chapter 6, *Control the Money Supply Passively*, last paragraph, last sentence

Changed “Recursionists” to “The just.”

Chapter 6, Free Association, second paragraph, second sentence

Changed “Bentham’s ideal” to “Bentham’s **utilitarian** ideal.”

Chapter 6, Free Association, third paragraph, end

Added the following footnote:

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“This question ought to be of particular interest to leaders of traditional cultures. Is it possible to skip the hedonistic stage of development? If so, is it wise to discourage lucid ideas from other cultures?”

Chapter 6, Conclusion, first paragraph, second sentence

“We can see this distinction in manufacturing, where those who see inventory control in terms of the EOQ model favor centralized production control (e.g., MRP systems) and those who see it in terms of the rapid tool-setting model favor decentralized control (e.g., the Toyota Production System).”

was changed to

“We can see this distinction in manufacturing, where those who see inventory control in terms of the EOQ model favor **highly** centralized production control (e.g., MRP systems) and those who see it in terms of the rapid tool-setting model favor **more** decentralized control (e.g., the Toyota Production System).”

Appendix, *Traditional Manufacturing Systems*, sixth paragraph, first sentence

Changed “two major advantages,” to “two major advantages:.”

Appendix, *Good People*, third point, first sentence

Changed “setup” to “establish.”

Appendix, footnote 7

“A production possibility frontier is **an** output hyperspace **map of** the most efficient use of a given set of production inputs.”

was changed to

“A production possibility frontier is **the production** output hyperspace **surface defined by** the most efficient use of a given set of production inputs.”

Changes in Version 2004.03.10

Chapter 3, *Ultimate Normative Ends of Life*, ninth paragraph, second sentence

Changed “life **of** pleasure” to “life **filled with** pleasurable activity.”

Chapter 3, *Ultimate Normative Ends of Life*, fourth paragraph, fourth sentence on

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“He found that these people seek to make the most of their talents in pursuit of goals that concern such transcendent values as truth, beauty, and goodness. Maslow described this as self-actualizing behavior. He recognized that because his subjects were all products of modern Western civilization, his conclusions were not universal. People living in other cultures could have very different means of satisfying these illusive needs.”

were changed to

“All of his subjects were the products of modern Western culture. Maslow found that these wise modern Westerners "self-actualize," by which he meant that they seek to make the most of their talents in pursuit of goals that concern such transcendent values as truth, beauty, and goodness. Maslow recognized that his conclusions were not universal: the wise of other cultures could have very different means of satisfying these illusive spiritual needs.”

Chapter 3, Eliminating Simplistic Theories, ninth paragraph, second sentence

Changed “mask” to “mask (forget).”

Chapter 4, *Pleasure and Pain*, second paragraph, third sentence

Changed “pleasure in being” to “pleasure.”

Chapter 4, *Pleasure and Pain*, fourth paragraph, end

Inserted the ninth paragraph after deleting the first word of the first sentence (“Further,”):

“Finding pleasure in an activity can improve the performance of that activity. Becoming absorbed in swimming can help competitive swimmers swim faster. Performance usually suffers when something painful, such as a sore shoulder, interferes with becoming absorbed in swimming. Similarly, becoming absorbed in thinking makes it easier to solve problems. We are usually less able to solve a problem if something painful, such as a headache, impedes losing ourselves in thinking.”

Chapter 4, *Pleasure and Pain*, sixth paragraph, second sentence

“Common pleasures come from activities that require common capabilities, material goods, and knowledge.”

was changed to:

“Common pleasurable activities require common capabilities, material goods, and knowledge.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Chapter 4, *Pleasure and Pain*, seventh paragraph, third sentence

“Pleasure-in-being ranges from relief to bliss.”

was changed to:

“Pleasure-in-being, which we commonly call “joy,” ranges from relief to bliss.”

Chapter 4, *Pleasure and Pain*, new seventh paragraph, end

Inserted the subsection title “*Vicious and Virtuous Circles*.”

Chapter 4, *Vicious and Virtuous Circles*, first paragraph, second sentence

Changed “forget (mask)” to “mask.”

Chapter 4, *Vicious and Virtuous Circles*, first paragraph, last sentence

Changed “instead of” to “rather than.”

Chapter 4, *Vicious and Virtuous Circles*, third paragraph, last sentence

Changed “performing activities” to “performing pleasurable activities.”

Chapter 4, *Vicious and Virtuous Circles*, last paragraph, first two sentences

“Thus, there exists a potential virtuous circle of pleasure-in-acting (“pleasure”) and pleasure-in-being (“joy”): learning to find pleasure in activities that are good for us encourages us to do these activities, which in turn gives us the potential to do more. Pursuing this virtuous circle increases not only pleasure and joy but also our abilities, knowledge, and non-knowledge goods.”

were changed to:

“Thus, there exists a potential virtuous circle of pleasure-in-acting and pleasure-in-being: learning to find pleasure in activities that are good for us encourages us to do these activities, which in turn gives us the potential to do more. Pursuing this virtuous circle increases not only pleasure-in-acting and pleasure-in-being but also our abilities, knowledge, and non-knowledge goods.”

Chapter 4, *Practical Wisdom*, second and third paragraphs

Switched order of the second (three means of deciding) and third (deprivation) paragraphs.

Chapter 4, *Two Means of Pursuing Happiness*, fourth paragraph, second sentence

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Changed “pleasure’s ability” to “pleasure-*in-acting*’s ability.”

Chapter 4, *Alternatives to Pursuing Happiness*, first paragraph

“The two major alternatives to pursuing happiness are pursuing pleasure and pursuing nothing. Like the wise, those who pursue pleasure (hedonists) understand that satisfying their needs increases their ability to pursue pleasure. Unlike the wise, they become attached to their pleasures and so break the virtuous circle of pleasure and joy. In economic parlance, they are happiness “satisficers” rather than “maximizers.” Because they often choose to mask the pain of being with pleasure, they are vulnerable to the vicious circle of compulsive behavior, which is habitually responding to a need with an activity that fails to satisfy it.”

was changed to:

“The two major alternatives to pursuing happiness are pursuing pleasurable activities and pursuing nothing. Like the wise, those who pursue pleasurable activities (hedonists) understand that satisfying their needs increases their ability to pursue pleasurable activities. Unlike the wise, they become attached to their pleasurable activities and so break the virtuous circle of pleasure-*in-acting* and *pleasure-in-being*. In economic parlance, they are happiness “satisficers” rather than “maximizers.” Because they often choose to mask pain-*in-being* with pleasure-*in-acting*, they are vulnerable to the vicious circle of compulsive behavior, which is habitually responding to a need with an activity that fails to satisfy it.”

Chapter 4, *Alternatives to Pursuing Happiness*, second paragraph, second sentence

Changed “do those who pursue pleasure” to “hedonists do.”

Chapter 4, *Alternatives to Pursuing Happiness*, last two paragraphs

“This distinction between pursuing happiness, pleasure, and nothing is more than a relic of Western civilization. In the Hindu tradition, the Sāṃkhya doctrine of the three gunas recognizes that all living things are mixtures of the qualities of lucidity (*sattva*), passion (*rajas*), and dark inertia (*tamas*). When lucidity prevails, we pursue happiness; when passion prevails, we pursue pleasure; and when dark inertia prevails, we pursue nothing.

“We can also see this distinction in Taoism: yin corresponds to pleasure-*in-being* (*dark inertia*); yang corresponds to pleasure-*in-acting* (*passion*); and the balance of yin and yang corresponds to pursuing happiness (*lucidity*).”

were changed to:

“This distinction between pursuing happiness, pursuing pleasurable activity, and following traditions or leaders is more than a relic of Western civilization. In the

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Hindu tradition, the Sāmkhya doctrine of the three gunas recognizes that all living things are mixtures of the qualities of *sattva* (lucidity), *rajas* (passion), and *tamas* (dark inertia). When lucidity prevails, we pursue happiness; when passion prevails, we pursue pleasurable activity; and when dark inertia prevails, we pursue nothing.

“We see compatible distinction in Taoism: yin corresponds to pursuing pleasure-in-being (joy); yang corresponds to pursuing pleasure-in-acting (pleasurable activity); and the balance of yin and yang corresponds to pursuing happiness (a life well lived).”

Chapter 4, *Human Capital, Work, and Leisure*, second paragraph, second sentence

Changed “pleasure and joy” to “pleasure-in-acting and pleasure-in-being.”

Chapter 6, *Free Association*, first paragraph, second sentence

“When lucidity prevails, we pursue happiness; when passion prevails, we pursue pleasure; and when dark inertia prevails, we accept our current circumstances and pursue nothing.”

was changed to

“When lucidity prevails, we pursue happiness; when passion prevails, we pursue pleasurable activity; and when dark inertia prevails, we follow our traditions or leaders.”

Chapter 6, *Free Association*, first paragraph, second sentence

Changed “seeking pleasure” to “pursuing pleasurable activity.”

Chapter 7, second paragraph, second sentence

Changed “help evaluate” to “help us evaluate.”

Changes in Version 2004.03.11

Chapter 1, *Managerial Excellence in Means*, last paragraph, second to last sentence

Changed “efficient” to “rational” and “efficient and effective” to “wise.”

Chapter 1, *The Recursionist Strategy*, fourth paragraph, last sentence

“From this perspective, waste is a regrettable by-product of learning through experience.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

was changed to

“Given a learning attitude, waste is a regrettable by-product of learning through experience.”

Chapter 2, Refining Recursionist Theories, last paragraph, first sentence

Inserted a the following sentences:

“Pragmatists focus on means. Idealists define ultimate ends. Pragmatic idealists refine ultimate ends:”

Chapter 2, Refining Recursionist Theories, last paragraph, end

Deleted the following footnote:

“Pragmatists focus on means. Idealists define ultimate ends. Pragmatic idealists refine ultimate ends.”

Chapter 3, *Divine Law*, third paragraph, fourth sentence

Changed “efficiently” to “ever more efficiently.”

Chapter 6, *Consider the Justice of Interventions*, first paragraph, last sentence

Changed “to prescribe just” to “to prescribe just behavior.”

Chapter 6, *Consider the Justice of Interventions*, last paragraph, first sentence

“Second, unjust or ineffective interventions tend to benefit a few greatly and harm the majority little.”

was changed to

“Second, unjust interventions tend to benefit a few people greatly and to harm many people only a little.”

Chapter 6, Just Taxation, fifth paragraph, last sentence

“Rather than demanding that governments redistribute income or wealth (per se), we ought to demand that governments encourage wise consumption.”

was changed to

“Unfortunately, humans are not as lucid as angels. This does not mean that we ought to demand that governments redistribute income or wealth, which would be an

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

unwarranted centralization of decision-making authority. Rather we ought to demand that governments encourage us to become ever more lucid.”

Changes in Version 2004.03.15

Chapter 2, Refining Recursionist Theories, fifth paragraph, first sentence

Changed “provides the rationale for” to “supports.”

Chapter 2, Practical Wisdom and Moral Philosophy, second paragraph

“One of the most valuable results of this ongoing human research program was the invention of science. Science competes with mystical revelation in providing us with objective truth, which some describe as a God’s eye view of the universe. **Scientists’ goal of discovering the objective truth has supported testing all theories by how well they predict.** Over the centuries the means of testing **predictions** has evolved. The earliest scientists tested simple systems using nothing more than their unaided senses and common sense. Later scientists invented **both** tools to enhance their senses (microscopes, telescopes, particle accelerators, **etc.**) **and** tools to enhance their common sense (calculus, statistics, computer simulation, **etc.**).”

was changed to:

“One of the most valuable results of this ongoing human research program was the invention of science. **Science provides us with proven knowledge useful in living good lives. Many scientists believe that it also** provides us with objective truth, which some describe as a God’s eye view of the universe. **The search for objective truth helps us to satisfy our need to be part of something greater than ourselves.**”

“**The essence of science is testing.** Over the centuries the means of testing has evolved. The earliest scientists tested simple systems using nothing more than their unaided senses and common sense. Later scientists invented tools to enhance their senses. **These tools include** microscopes, telescopes, **cloud chambers**, particle accelerators, **and gene mapping equipment. They also invented** tools to enhance their common sense. **These tools include** calculus, statistics, and computer simulation.”

Chapter 2, Practical Wisdom and Moral Philosophy, new fourth paragraph, first sentence

Changed “**For over two centuries** scientists have struggled” to “**Scientists have long** struggled.”

Chapter 2, Practical Wisdom and Moral Philosophy, fifth paragraph, last two sentences

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“Although we can improve the process by which our genetic programming develops into our higher level programming, we cannot improve our higher level internal programming beyond the bounds set by our genetic programming.⁶ Therefore, we can safely assume that our fully realized internal programming is fixed.”

were moved into the beginning of the sixth footnote. See footnote reference position below.

Chapter 2, Practical Wisdom and Moral, sixth paragraph

“Although we can safely assume that our internal programming is fixed, we will never know with complete certainty what it is. The most we can know is what it is not. The process of solving our universal economic problem ought to include eliminating inadequate theories of our internal programming.”

appended to the fifth paragraph and changed to:

“For all practical purposes, we can assume that our fully realized internal programming is fixed.⁶ However, we will never know with complete certainty what this internal programming is. The most we will ever know is what it is not.”

Chapter 2, footnote 7, Lao Tzu quote

Changed “everlasting” to “eternal.”

Chapter 2, Practical Wisdom and Moral Science, last paragraph, first sentence

Changed “comes from defining” to “is to define.”

Chapter 3, Practical Benefits of Magical Mysticism, second paragraph, first sentence

Changed “replacement” to “triumph.”

Chapter 4, Vicious and Virtuous Circles, first paragraph, second sentence

Added the sentence:

“Habitually masking our needs with pleasurable activity may lead to the vicious circle of compulsive behavior.”

Chapter 4, Practical Wisdom, second paragraph, third through eighth sentences

“Second, it can bias our perception and intuition, e.g., a person suffering from severe thirst will tend to perceive opportunities for relieving thirst and not to perceive other opportunities. Similarly, a person needing love or esteem will tend to perceive opportunities for satisfying these needs and not others. Third, it can retard learning,

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

and the resulting ignorance can cause us to act foolishly. **For example**, students lacking adequate safety, nourishment, affection, or self-respect often find learning difficult. Finally, it can cause strong emotions or appetites, which can lead to incontinence. Because we need practical wisdom to avoid deprivation, and deprivation can interfere with practical wisdom in a variety of ways, we face a variety of potential vicious circles involving **imprudence** and deprivation.”

was changed to

“Second, it can bias our perception and intuition: a person suffering from severe thirst, **love, or self-esteem** will tend to perceive opportunities for relieving **the immediate need** and not to perceive other opportunities. Third, it can retard learning, and the resulting ignorance can cause us to act foolishly: **students** lacking adequate safety, nourishment, affection, or self-respect often find learning difficult. Finally, it can cause strong emotions or appetites, which can lead to incontinence: **anger, greed, lust, and ambition can overcome practical wisdom**. Because we need practical wisdom to avoid deprivation, and deprivation can interfere with practical wisdom in a variety of ways, we face a variety of potential vicious circles involving **practical wisdom** and deprivation.”

Chapter 4, *Three Common Misbeliefs*, third paragraph

“The need for information about the conditions of production and the merits and demerits of these conditions creates an opportunity for suppliers, auditing firms, and advocacy groups. Trust in the quality of this information is crucial to the long-term success of suppliers of this information.”

was reduced to a footnote.

Chapter 6, footnote 3, last sentence

Changed “not values (and related behaviors), but rather vision (and related concepts)” to “vision (and related concepts, not values (and related behaviors)).”

Changes in Version 2004.03.20

Chapter 2, Practical Wisdom and Moral Philosophy, second paragraph, second sentence

Changed “**proven** knowledge” to “**tested** knowledge **that is**.”

Chapter 2, Practical Wisdom and Moral Philosophy, second paragraph, third sentence

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Changed “**scientists** believe that **it** is” to “**people** believe that **science** is.”

Chapter 3, footnote 13

Changed “Teh” to “Te (**Teh**).”

Chapter 4, Production, second to last sentence

“The wise plan to learn from experience.”

was changed to:

“To produce wisely is to seek to produce ever more wisely.”

Chapter 4, Profit, last sentence

“We **are all** entrepreneurs in the business of life.”

was changed to:

“**To live wisely is to seek to live ever more wisely.** We **ought to be** entrepreneurs in the business of life.”

Changes in Version 2004.03.22

Chapter 1, Mainstream Economics' Blind Spot, fourth paragraph, second sentence

Changed “(Neoclassical)” to “(**Anglo-American** Neoclassical).”

Chapter 1, Overview, fourth from last paragraph, last sentence

Changed “**for** certain **types of decisions**” to “**under** certain **conditions**.”

Chapter 1, The Recursionist Strategy, last paragraph

“The recursionist strategy aims at improving decision-making by improving the factors of good decision-making. **Four** of these strategic assets are worth mentioning here. The first is a **world-view and related conceptual framework that helps us think clearly about our ultimate ends and the best means for achieving them.**⁴ The second is practical wisdom — our ability to think clearly, choose prudently, and behave continently. The **third** is trust, which is essential for both efficient exchange and wise decision-making.⁵ And the **fourth** is the liberty to implement the alternative that makes the most productive use of our resources without unjustly interfering with others’

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

liberty to do the same. **Vision (and related concepts)**, practical wisdom, trust, and liberty are critical factors in information age economies.”

was changed to:

“The recursionist strategy aims at improving decision-making by improving the factors of good decision-making. **Three** of these strategic assets are worth mentioning here. The first is practical wisdom — our ability to think clearly, choose prudently, and behave continently. **Practical wisdom includes a strategic vision of our ultimate ends and the best means of achieving them.**⁴ The **second** is trust, which is essential for both efficient exchange and wise decision-making.⁵ And the **third** is the liberty to implement the alternative that makes the most productive use of our resources without unjustly interfering with others’ liberty to do the same. Practical wisdom, trust, and liberty are critical factors in information age economies.”

Chapter 1, The Recursionist Strategy, footnote 4, first three sentences

“We can see the importance of **world-view / strategic vision** in the Cold War rivalry beneath the seas. At the beginning of the nuclear submarine era, the Soviets **assumed that NATO submarines had as difficult time detecting their submarines as they did detecting NATO ones. Given this belief, the Soviets** viewed submarines as being like contemporary aircraft.”

was changed to:

“We can see the importance of strategic vision in the Cold War rivalry beneath the seas. At the beginning of the nuclear submarine era, the Soviets viewed submarines as being like contemporary aircraft.”

Chapter 1, Overview, fourth sentence

Changed “means **for** tightening” to “means **of** tightening.”

Chapter 2, footnote 7

“We can think about this complex interplay, which speculator and philanthropist George Soros calls “reflexivity,” as the combination of two universal tendencies of normative intellectual models. The first is the tendency of normative models to become increasingly popular. This is due to their self-fulfilling nature. The second is their tendency to undermine the conditions that make them useful. This is due to their imperfections. When we apply these models repeatedly, they tend to lead us ever further away from ideal paths toward living good lives. **Lao Tzu wrote: “The Way that can be known is not the true Way. / The Way that can be walked is not the eternal Way.”** In chaos theory terms, the “piling up” of intrinsic errors tends to pull us away from “attractors” that “emerge” from our teleonomic programming. Model quality

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

tends to vary directly with the first tendency and inversely with the second. This explains why large speculative bubbles are the exception rather than the rule.”

was changed to:

“ We can think about this complex interplay, which speculator and philanthropist George Soros calls “reflexivity” (*The Alchemy of Finance*, New York: Simon & Shuster, 1988), as the combination of two universal tendencies of normative intellectual models. The first is the tendency of normative models to become increasingly popular. This is due to their self-fulfilling nature. The second is their tendency to undermine the conditions that make them useful. This is due to their imperfections. When we apply these models repeatedly, they tend to lead us ever further away from ideal paths toward living good lives. Model quality tends to vary directly with the first tendency and inversely with the second. This explains why large speculative bubbles are the exception rather than the rule.

“European philosophers associate the second tendency with Georg Hegel. Chinese philosophers associate it with Lao Tzu. The *Tao Te Ching* opens: “The Way that can be followed is not the true Way. The Way that can be known is not the eternal Way.”

“Trying to follow the Way using theories of it is like trying to “travel down” the transcendental number pi by finding ever better rational approximations of it. Rather than seeking better rational approximations of transcendental numbers such as pi, mathematicians seek more efficient strategies (formulae / instructions) for producing approximations.”

Chapter 5, Economic Viscosity, second paragraph, first sentence

“Previous chapters discussed the roles that moral vision (and related concepts), practical wisdom, and trust play in good decision-making.”

was changed to:

“Previous chapters discussed the roles that practical wisdom and trust play in good decision-making.”

Chapter 5, Economic Viscosity, third paragraph, first sentence

Changed “decision tasks” to “decision-making tasks”

Changes in Version 2004.03.24

Preface, second paragraph, last sentence

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Changed “all of the boxes” to “the boxes.”

Preface, fourth paragraph

Inserted the following paragraph:

“Consider how mathematicians approximate the transcendental number pi. Rather than seeking better *rational approximations* of pi:

$$\begin{array}{c} 3 \\ 22/7, \\ 355/113, \\ \dots \end{array}$$

mathematicians seek better (more rapidly converging) *strategies* for calculating pi:

$$\begin{array}{l} \pi = 4(1 - 1/3 + 1/5 - 1/7 + 1/9 - 1/11 + \dots), \\ \pi = 2 \cdot \sqrt{3}(1 - 1/3 \cdot 3 + 1/5 \cdot 3^2 - 1/7 \cdot 3^3 + 1/9 \cdot 3^4 - 1/11 \cdot 3^5 + \dots), \\ \dots \end{array}$$

Chapter 2, footnote 7, third paragraph

“Trying to follow the Way using theories of it is like trying to “travel down” the transcendental number pi by finding ever better rational approximations of it. Rather than seeking better rational approximations of transcendental numbers such as pi, mathematicians seek more efficient strategies (formulae / instructions) for producing approximations.”

was changed to:

“In chaos theory terms, the “piling up” of errors in our theories tends to pull us away from “attractors” that “emerge” from our teleonomic programming.”

and appended to the second paragraph.

Changes in Version 2004.03.25

Preface, fifth paragraph, first sentence

“Consider how **mathematicians** approximate **the transcendental number pi**.”

was changed to:

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“Mathematicians face a similar problem when they confront the transcendental number pi. Consider how they approximate pi.”

Preface, fifth paragraph, second sentence

#1. Changed “(more rapidly converging)” to “(algorithms / means).”

#2. Changed “... .” to “... ,

where better strategies are strategies that converge more quickly.”

Chapter 2, Practical Wisdom and Moral Science, sixth paragraph, last sentence

Changed “their quest” to “the quest.”

Chapter 2, *Ultimate Normative Ends of Life*, fifteenth paragraph, fifth sentence

Changed “satisfying the need” to “satisfying our need.”

Chapter 3, *Ultimate Normative Ends of Life*, last paragraph, fifth sentence

“We can easily correct this flaw by eliminating this assumption.”

was changed to:

“Belief in the existence of the infinite Being is a matter of faith, not of reason. We can easily correct Schweitzer’s mistake by eliminating this assumption.”

Chapter 3, *Practical Benefits of Magical Mysticism*, last paragraph, fifth sentence

“The increased clarity and energy of elevated consciousness can trigger further changes in beliefs.”

was changed to:

“The increased clarity and energy of elevated consciousness can trigger changes in beliefs, which can further elevate consciousness, which can trigger further changes in belief, and so on. Thus, a small event can trigger an avalanche of change.”

Chapter 6, Moral Vision, second paragraph, fourth sentence

Changed “useful knowledge” to “commonwealth (commonweal / general welfare).”

Chapter 6, Just Taxation, fifth paragraph, third sentence

Deleted “(commonweal / general welfare).”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Chapter 7, second paragraph, third sentence

Changed “achieve our ultimate ends” to “pursue happiness.”

Appendix, last paragraph, last sentence

Added the one sentence paragraph:

“A production team’s reach should always exceed its grasp.”

Appendix, *A Learning Attitude*, last paragraph, last sentence

Added the one sentence paragraph:

“They thrived by **learning** wisely.”

was changed to:

“They thrived by **producing ever more** wisely.”

Changes in Version 2004.03.29

Preface, fourth paragraph, third sentence

Deleted “(algorithms / means).”

Chapter 2, footnote 7, last paragraph, end

Added the sentence:

“Our theories of our teleonomic programming are no more our true teleonomic programming than our rational approximations of pi are pi.”

Chapter 2, Practical Wisdom and Moral Science, last paragraph, second sentence

“Until all of us act wisely, managing this process well requires distinguishing between **theories designed to help us predict, which help us evaluate alternatives, and theories designed to help us explain, which help us formulate alternatives.**”

was changed to:

“Until all of us act wisely, managing this process well requires distinguishing between **strategies for helping us to follow our teleonomic programming and theories for helping us to predict how others will follow their teleonomic programming.**”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Chapter 3, *Ultimate Normative Ends of Life*, tenth paragraph, last sentence

“And because our needs naturally form a hierarchy, we can view cultures as aiming to satisfy what **we** believe to be **our** highest need.”

was changed to:

“And because our needs naturally form a hierarchy, we can view cultures as aiming to satisfy what **members** believe to be **their** highest need.”

Chapter 3, *Sacrifice versus Prudence*, third and fourth paragraphs

“The one area in which extreme Dionysian means to mystical oneness remains relatively **unchecked** is **when it coincides with the normative end of reverence for life**. Even here successful religions teach us to balance the extreme Dionysian with the Apollonian. Too small a willingness to risk ourselves for the sake of others is deemed to be cowardly. Too great a willingness to risk ourselves for others is deemed to be foolhardy or self-destructive. Only the proper balance is deemed to be heroic. *The wise temper sacrifice with prudence.*”

“The most heroic acts are those in which the hero sacrifices his or her life for the sake of others. The heroic death combines the magical and ethical means of satisfying our need for mystical oneness in a single, final act.”

were changed to:

“The one area in which extreme Dionysian means to mystical oneness remains relatively **unsanctioned** is **heroism. The most heroic acts are those in which the hero sacrifices his or her life for the sake of others. The heroic death combines the magical and ethical means of satisfying our need for mystical oneness in a single, final act.** Even here successful religions teach us to balance the extreme Dionysian with the Apollonian. Too small a willingness to risk ourselves for the sake of others is deemed to be cowardly. Too great a willingness to risk ourselves for others is deemed to be foolhardy or self-destructive. Only the proper balance is deemed to be heroic. *The wise temper sacrifice with prudence.*”

Chapter 3, Summary, first (and only) paragraph

Inserted the paragraph:

“We owe it to ourselves to follow our teleonomic programming. Our theories of our teleonomic programming are no more our true teleonomic programming than our rational approximations of pi are pi. We ought to distinguish between our strategies for helping us to follow our teleonomic programming and our theories for helping us to predict how others will follow their teleonomic programming. In humanist terms,

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

we ought to distinguish between our strategies for following natural law and our theories for predicting how others will follow natural law.”

Deleted “that we use to help us identify what we need” from the first sentence.

Chapter 6, Conclusion, second paragraph, second sentence

Deleted the sentence:

“This assumption ignores the complexity involved in learning to live wisely.”

Afterword, last paragraph, first sentence

Changed “maintain” to “refine.”

Afterword, last paragraph, last sentence

Inserted a paragraph break and appended the sentence:

“It argues that freedom is an essential element in the ever-evolving process of discovering, testing, and applying knowledge useful in living good lives.”

Changes in Version 2004.04.13

Preface, fourth paragraph, first two sentences

“Mathematicians face a similar problem when they **confront** the transcendental number pi. **Consider how they approximate pi.**”

was changed to:

“Mathematicians face a similar **(open-ended)** problem when they **seek to evaluate** the transcendental number pi.”

Preface, fourth paragraph, new second sentence

Changed “better” to “**ever** better” in all.

Chapter 1, fourth footnote

“We can see the importance of strategic vision in the **Cold War rivalry beneath the seas. At the beginning of the nuclear submarine era, the Soviets viewed submarines as being like contemporary aircraft. Rather than focusing on stealth, they focused on speed and diving capability. In the mid-seventies the Soviets discovered how easily**

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

the US Navy tracked their submarines. This discovery led them to build a new fleet of much stealthier submarines, which greatly lowered the probability of a quick NATO victory at sea. The vision of stealthy submarines produced better problems to solve than the vision of fast, deep diving ones.”

was changed to:

“We can see the importance of strategic vision in the difference between attrition and maneuver warfare. Where the former relies on superior military force to grind down adversaries, the latter relies on superior knowledge and agility to defeat adversaries. Confederate Calvary General Nathan Bedford Forrest aptly described maneuver warfare as “getting there firstest with the mostest.” Colonel John R. Boyd, USAF, more aptly described it as “getting inside the enemy’s observe-orient-decide-act (OODA) loop. In attrition warfare, weapons are the most important strategic asset. In maneuver warfare, warriors are the most important strategic asset.”

Chapter 1, Overview, last paragraph, last sentence

Changed “discusses how government policy makers can address this problem” to “outlines how government policy makers ought to approach this issue.”

Afterword, first paragraph, fifth sentence

“When I discuss it with business and military leaders, the topic of interest is the importance of culture and strategic vision in “fast” organizations, especially the need to bolster observation-orientation-decision-action (OODA) loop performance with strategic asset building loops.”

was changed to:

“When I discuss it with business and military leaders, the topic of interest is the importance of culture and strategic vision in “fast” organizations.”

Changes in Version 2004.04.16

Chapter 1, The Recursionist Strategy, last paragraph, fourth sentence

“The second is trust, which is essential for both efficient exchange and wise decision-making.”

was changed to:

“The second is trust, which is essential for not only efficient exchange but also wise decision-making.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Chapter 2, fifth paragraph, last sentence

“For more on **this apparent contradiction of David Hume**, read part two of Mortimer Adler’s *Ten Philosophical Mistakes* (New York: Macmillan, 1985).”

was changed to:

“For more on **how teleonomic theories can be both positive and normative**, read part two of Mortimer Adler’s *Ten Philosophical Mistakes* (New York: Macmillan, 1985).”

Chapter 2, Moral Science and Practical Wisdom, first paragraph

Changed “compelled” to “programmed” in all.

Chapter 3, Conclusion (Eliminating Unethical Theories), second sentence

Changed “we can develop rules” to “**then** we can develop rules.”

Chapter 3, Summary

Moved second sentence of first paragraph to end of the second paragraph. Deleted the first paragraph.

Changes in Version 2004.04.19

Chapter 4, Two Means of Pursuing Happiness, second paragraph, eighth sentence

Changed “**action** of sharing” to “act of sharing.”

Chapter 4, Two Means of Pursuing Happiness, second paragraph, last sentence

Changed “**have** too much **knowledge**” to “**learn** too much.”

Chapter 4, Alternatives to Pursuing Happiness, last paragraph, first sentence

Appended sentence to previous paragraph. Changed “We see a compatible distinction in Taoism:” to “In the Taoist tradition,.”

Chapter 4, Alternatives to Pursuing Happiness, last paragraph, last sentence

Deleted “(a life well lived).”

Chapter 4, Human Capital, Work, and Leisure, first paragraph, first sentence

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Changed “*disagreeable*” to “disagreeable.”

Chapter 4, Human Capital, Work, and Leisure, second paragraph, first three sentences

“There is much wisdom in the adage that to be successful, we should discover what it is that we love to do and then figure out how to be paid for it. The wise manager knows that it is in everyone’s best interest to help subordinates find work that they enjoy and to make all work as enjoyable as possible. The wise chief executive knows that establishing and promoting a corporate mission consistent with employees’ ultimate ends and then maintaining ethical standards consistent with this mission makes all employees’ work more satisfying.”

was changed to:

“The fortunate discover early in life what they love to do and how to be paid to do it.”

Chapter 4, Human Capital, Work, and Leisure, last paragraph

“From the recursionist view, human capital is knowledge of how to satisfy our needs, which includes knowledge that increases our income potential. Work is any activity that we are paid to perform. Leisure is any activity that helps us to satisfy our needs, which includes activities that add to our human capital.”

was changed to:

“From the recursionist view, human capital is knowledge that helps us to satisfy our needs; work is any activity that we are paid to perform; and leisure is time spent satisfying our needs.”

Chapter 4, Trade, first paragraph, last four sentences

“Increasing excellence in the means of trade is a matter of lowering costs over the life of the trading relationship. We can classify the costs associated with trade into those that vary and do not vary with the number of transactions. The former, variable costs include all the costs involved with a particular transaction and the latter, fixed ones include all of the costs involved in establishing, maintaining, and ending the trading relationship.”

was changed to:

“We invest in trading relationships in order to lower the cost of transactions. The cost of trading includes not only the cost of establishing trading relationships and the cost of individual transactions but also the cost of unwinding trading relationships. Having a reputation of unwinding trading relationships fairly tends to lower the cost of establishing new trading relationships.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Chapter 4, Trade, second paragraph

“Often we must choose between trading relationships having relatively high relationship costs but low transaction costs and relationships having relatively low relationship costs but high transaction costs. For example, managers may fill their need for labor by hiring permanent employees or by hiring temporary employees through a temporary employment agency. Changes in the costs associated with the means of trade will prompt wise decision-makers to change their behavior. Using the same hiring decision example, raising the costs of hiring or terminating permanent employees will make hiring temporary employees relatively more attractive. Changes in the expected life of the trading relationship will also prompt wise managers to change their behavior. In general, the shorter or more uncertain the expected life of the trading relationship, the more attractive low fixed cost relationships will be.”

was deleted.

Chapter 4, *Trust*, first paragraph

“We invest in trading relationships in order to lower transaction costs. For example, grocery stores find it efficient to issue identification cards to credit-worthy customers. This added fixed cost potentially lowers the stores’ cost of each transaction paid for by check.”

was deleted.

Chapter 4, *Trust*, new first paragraph, first two sentences

“We also invest in trading relationships in order to trade at all. New construction firms usually need to spend time and money convincing potential clients that they are able to complete jobs satisfactorily.”

were deleted.

Chapter 4, *Trust*, new first paragraph, last sentence

Changed “*act as expected*” to “*perform as expected*.”

Chapter 6, Just Taxation, first paragraph, last sentence

Changed “as **current** information technology permits” to “as **culture and** information technology permit.”

Changes in Version 2004.04.21

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Chapter 2, Practical Wisdom and Moral Science, first paragraph, first sentence

Deleted “by our internal programming.”

Chapter 4, *Trust*, second paragraph

“Trust is a form of useful knowledge. Like other forms of useful knowledge, using it does not deplete it.³ However, unlike other forms of useful knowledge, violating it can destroy it. Because deceit can destroy trust in the immediate relationship, in its victim’s other relationships, and in its witnesses’ relationships, it is the most malignant of all economic ills.”

³ In trade, using trust can increase it. Honest traders and confidence men alike know that if they can establish trust with a small trade they can build on it.”

was changed to:

“Trust differs from other forms of knowledge in two respects. First, using trust can increase it. Honest traders and confidence men alike know that if they can establish trust with a small trade they can build on it. Second, violating a trust can destroy not only it but other trust as well. Deceit can destroy trust in the immediate relationship, in its victim’s other relationships, and in its witnesses’ relationships. It is the most malignant of all economic ills.”

Chapter 4, *Trust*, third paragraph

“Trust plays a particularly important role in information age economies. **There are at least four reasons for this. First**, many forms of knowledge can be easily duplicated, which makes them easy to steal. **Second**, stealing knowledge does not prevent its owner from using it, which makes the theft of knowledge easier to conceal. **Third, legal protections for knowledge are not as complete as they are for scarce resources. Finally**, the legal recourse for stolen knowledge tends to be more expensive than it is for scarce resources, where evidence of theft is more clear-cut.”

was changed to:

“Trust plays a particularly important role in information age economies. **Knowledge is relatively difficult to protect from theft: (1)** many forms of knowledge can be easily duplicated, which makes them easy to steal; **(2)** stealing knowledge does not prevent its owner from using it, which makes the theft of knowledge easier to conceal; and **(3)** the legal recourse for stolen knowledge tends to be more expensive than it is for scarce resources, where evidence of theft is more clear-cut **and the legal precedents tend to be better established. The more expensive knowledge is to protect from theft, the less of it will be created. Trust lowers the cost of protecting knowledge from theft.**”

Chapter 4, footnote 4

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“⁴ The need for information about the conditions of production and the merits and demerits of these conditions creates an opportunity for suppliers, auditing firms, and advocacy groups. Trust in the quality of this information is crucial to the long-term success of suppliers of this information.”

was deleted.

Chapter 5, last paragraph, last sentence

Inserted paragraph break.

Chapter 6, Just Taxation, fifth paragraph

“The case for eliminating personal income taxes is **much** more problematic. **The wise satisfy their needs justly. If humans were perfectly wise, an increase in personal wealth would lead to an equivalent increase in commonwealth.** If **humans** were as lucid as angels, there would be no need for governments to **redistribute income or wealth.** **Unfortunately, humans** are not as lucid as angels. This does not mean that we ought to demand that governments **redistribute income or wealth, which would be an unwarranted centralization of decision-making authority.** Rather we ought to demand that governments encourage us to become ever more lucid.”

was changed to:

“The case for eliminating personal income taxes is more problematic. If **we** were as lucid as angels, **we would share our wealth wisely.** There would be no need for governments to **force us to do so.** **We** are not as lucid as angels. This does not mean that we ought to demand that governments **force us to share our** wealth. Rather we ought to demand that governments encourage us to become ever more lucid.”

Chapter 6, Just Taxation, sixth paragraph, seventh sentence

“Ideally, the government program would shrink to insignificance **over time.**”

was changed to:

“ Ideally, the government program would shrink to insignificance.”

Chapter 6, Conclusion, first paragraph, third sentence

“We also can see it in monetary policy, where those who see a simple trade-off between inflation and unemployment favor centralization, and those who see no such trade-off favor decentralization.”

was deleted.

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Changes in Version 2004.04.26

Chapter 4, Human Capital, Work, and Leisure, last paragraph, last sentence

“The fortunate discover early in life what they love to do and how to be paid to do it.”

was changed to:

“In religious terms, discovering one’s true calling is a blessing.”

and appended to the preceding paragraph.

Appendix, A Learning Attitude, first bullet point, last sentence

“Once we learn how to produce good quality at no **extra** cost, **good quality** is less expensive.”

was changed to:

“Once we **have learned** how to produce good quality at no **additional** cost, doing so is less expensive.”

Appendix, A Learning Attitude, first bullet point, last sentence

“Once we **know** how to produce in small batches at no additional cost, doing so is less **costly**.”

was changed to:

“Once we **have learned** how to produce in small batches at no **additional** cost, doing so is less **expensive**.”

Appendix, A Learning Attitude, second bullet point, last sentence

“Again, once we **know** how to make products using fewer material resources at no additional cost, doing so is less expensive.”

was changed to:

“Again, once we **have learned** how to make products using fewer material resources at no additional cost, doing so is less expensive.”

Changes in Version 2004.05.01

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Entire work

As a quick and dirty response to feedback regarding the third chapter, that chapter was moved to an appendix. Appropriate changes were made throughout the work to reflect this change. These were reversed in version 104.05.05.

Preface, second paragraph, last sentence

Inserted paragraph break. Changed:

“In retrospect, I wanted a unified theory of ethics, economics, and politics **that would allow me to think outside the boxes that less complete theories create.**”

to:

“In retrospect, I wanted a unified theory of ethics, economics, and politics. **I have had to settle for what physicist Murray Gell-Mann calls "a crude look at the whole," plus a strategy for refining this vision.**”

Acknowledgments, last paragraph, last sentence

“ Understanding the inconsistency between his conceptual framework and his normative end of free growth and spontaneous evolution helped me better understand the dynamic balance of freedom and progress at the core of the Scottish Enlightenment.”

was deleted.

Chapter 1, fourth footnote, last two sentences

“In attrition warfare, **weapons are** the most important strategic asset. In maneuver warfare, **warriors are** the **most important** strategic asset.”

was changed to:

“In attrition warfare, the most important strategic assets **are men and material.** In maneuver warfare, the **key** strategic assets **are leadership and fighting skills.**”

Chapter 1, Overview, second through fifth sentences

“The next **three** chapters expand on this strategy. *New Foundations* proposes new foundations for science and evolutionary economic explanations. *Eliminating Teleonomic Theories* provides **two means of tightening the loose theory on which the strategy rests.** *Increasing Excellence in Means* offers recursionist alternatives for several potentially misleading marginalist concepts and apparent precepts.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

was changed to:

“The next **two** chapters expand on this strategy. *New Foundations* proposes new foundations for science and evolutionary economic explanations. *Excellence in Means* offers recursionist alternatives for several potentially misleading marginalist concepts and apparent precepts.”

New Chapter 4, Introduction, first paragraph, third sentence

“Those **dominated by hedonism and sloth become more lucid**; those addicted to mind-altering drugs gain the fortitude to kick their habits; and those suffering from compulsive behaviors come to escape the traps in which they are ensnared.”

was changed to:

“Those **driven to win acceptance or admiration of their neighbors begin to seek happiness**; those addicted to mind-altering drugs gain the fortitude to kick their habits; and those suffering from compulsive behaviors come to escape the traps in which they are ensnared.”

New Chapter 4, Introduction, third paragraph, first sentence

Enclosed “thought experiment” with quotation marks.

New Chapter 4, A Simple Model of Progress and Turbulence, title

Changed title to “A Crude Look at the Whole.”

Afterword, second paragraph, first sentence

“I’ve also learned that if the discussion lasts long enough, it usually drifts to politics, especially to the question of whether **the book** is “liberal” or “conservative” in the **modern American sense**.”

was changed to:

“I’ve also learned that if the discussion lasts long enough, it usually drifts to politics, especially to the question of whether **I am** “liberal” or “conservative” in the way **that these terms are currently used in the United States**.”

Afterword, third through last paragraphs

Changed “liberal / liberals” to “left wing / left wingers / those on the left” and “conservative / conservatives” to “right wing / right wingers / those on the right” throughout.

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Afterword, eighth paragraph, first sentence

“For conservatives, the major problem is that the dynamic continues only if each generation chooses increasingly inclusive (“feminine”) ends.”

was changed to:

“For those on the right, the major problem is that this dynamic process results in a culture based on ever more inclusive (“feminine”) ends.”

Afterword, eighth paragraph, last sentence

“A more useful explanation is that the United States owes its success to its natural law tradition of freedom and progress toward the normative end of reverence for life.”

was changed to:

“A more useful explanation (in moving toward the ultimate normative end of reverence for life) is that the United States owes its success not to any fixed cultural tradition but rather to its tradition of political freedom and cultural progress toward the normative end of reverence for life.”

Afterword, last two paragraphs

“Supporters of this tradition of political freedom and cultural progress (process conservatives) seek to refine the dynamic process that made the United States great. Enemies of this tradition are those who seek to gain government favors at the expense of progress (special interests), impose their vision on others (authoritarians), maintain the current state of the world for its own sake (state-of-the-world conservatives), and consider liberty an end in itself rather than a means to justice (libertarians).

“*Wealth in the Information Age* is liberal progressive, classically liberal in means and progressive in ends. It argues that freedom is an essential element in the ever-evolving process of discovering, testing, and applying knowledge useful in living good lives.”

was changed to:

“My information age political and cultural position is difficult to describe to those with an industrial age vision. When talking to those on the right, I claim to be a “process conservative” in that I seek to preserve the tradition of political freedom and cultural progress toward the normative end of reverence for life. When talking to those on the left, I claim to be a “liberal progressive” in that I favor (classical) liberal political means and “progressive” cultural ends. Although I am comfortable making these two claims, I am more comfortable defining my position in terms of whom I oppose. I ardently oppose those who seek to use the power of the state to impose their vision on others (“authoritarians”) and those who seek to gain government favors at

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

the expense of progress (“special interests”). I also oppose those who seek to maintain the current state of the world for its own sake (“state-of-the-world conservatives”) and those who consider liberty an end in itself rather than a means to justice (“libertine libertarians”).”

Changes in Version 2004.05.05

Preface, third paragraph, last sentence

“I have had to settle for what physicist Murray Gell-Mann calls "a crude look at the whole," plus a strategy for refining this vision.”

to:

“I have had to settle for **a means of refining** what physicist Murray Gell-Mann calls "a crude look at the whole.””

Preface, fifth paragraph, last sentence

Changed “**strategies** that converge more quickly” to “**those** that converge more quickly.”

Chapter 1, fourth paragraph, last sentence

Changed “scarce resources **at** achieving” to “scarce resources **directed toward** achieving.”

Chapter 1, Mainstream Economics' Blind Spot, fourth paragraph, last sentence

“Managers who do not expect learning **neither** instruct their **workers** to **look for better ways of doing things nor** invest **resources to improve the environment for creating useful knowledge.**”

was changed to:

“ Managers who do not expect learning **do not** instruct their **subordinates** to **learn, much less** invest **in learning-by-doing.**”

Chapter 1, Mainstream Economics' Blind Spot, tenth paragraph, third sentence

“Short setup times have allowed Toyota to produce small batches of parts **during the same shift that they are assembled.**”

was changed to:

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“Short setup times have allowed Toyota to produce small batches of parts for almost immediate assembly.”

Chapter 1, Managerial Excellence in Means, third paragraph, fifth sentence

“However, the Americans recognized that digital television technology was progressing down a much steeper learning curve.”

was changed to:

“However, the Americans recognized that the cost of digital technology was likely to continue to fall much quicker than the cost of analog technology.”

Chapter 1, The Recursionist Strategy, third paragraph, second and third sentences

“The inexhaustibility of knowledge makes it impossible to know exactly how it will be used in the future, which makes it impossible to measure its value by measuring the value of the resources it replaces. The best we can do is to measure our subjective assessment of its value by using decision science techniques.”

was changed to:

“The inexhaustibility of knowledge makes it impossible to value knowledge by measuring the value of the non-knowledge resources it replaces. The best we can do is to measure its value subjectively using decision science techniques.”

“ However, the Americans recognized that the cost of digital technology was likely to continue to fall much quicker than the cost of analog technology.”

Chapter 1, fourth footnote

“We can see the importance of strategic vision in the difference between attrition and maneuver warfare. Where the former relies on superior military force to grind down adversaries, the latter relies on superior knowledge and agility to defeat adversaries. Confederate Calvary General Nathan Bedford Forrest aptly described maneuver warfare as “getting there firstest with the mostest.” Colonel John R. Boyd, USAF, more aptly described it as “getting inside” the enemy’s observe-orient-decide-act (OODA) loop. In attrition warfare, the most important strategic assets are men and material. In maneuver warfare, the key strategic assets are leadership and fighting skills.”

was deleted.

Chapter 2, Refining Everyday Thinking, first paragraph

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“Toyota’s strategy for learning how to manufacture ever more wisely involves slowly tightening a loose production system by removing ignorance in the form of work-in-process inventory. (See Appendix: The Toyota System.) Similarly, the recursionist strategy for learning how to live ever more wisely involves slowly tightening a loose theory of means by removing ignorance in the form of theories of ultimate ends.”

was changed to:

“The recursionist strategy for learning how to live ever more wisely involves slowly tightening a loose theory of means by removing ignorance in the form of theories of ultimate ends.”

Chapter 2, *Theories produce predictions and explanations.*, sixth paragraph, fourth sentence

Changed “self-fulfilling **quality**” to “self-fulfilling **property of theories.**”

Chapter 2, fourth footnote

“Like mainstream economists, modern Austrian economists believe that our choices reveal our “consumer preferences” and that we cannot explain how we develop these “preferences.” For mainstream economists, this is reasonable for the same reason that predicting that tomorrow’s weather will be just like today’s is reasonable: assuming that we have something called “consumer preferences” and that these remain constant over the period under analysis yields good predictions. However, for modern Austrian economists, who seek to explain human action, this is inadequate.”

was deleted.

Chapter 2, Refining Recursionist Theories, fourth paragraph, last sentence

Changed “**an** internal program **or programs**” to “**our** internal programming.”

Chapter 2, fifth footnote

“Teleonomic theories *describe* our internal programming as it is. Because we owe it to ourselves (ought) to live good lives, these explanations also *prescribe* what we ought to seek. For more on how teleonomic theories can be both positive and normative, read part two of Mortimer Adler’s *Ten Philosophical Mistakes* (New York: Macmillan, 1985).”

was deleted.

Chapter 2, Refining Recursionist Theories, last paragraph, end

Added the following paragraphs and footnotes:

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“We can eliminate teleonomic theories by developing rules for eliminating those that fall short of our ideals. This requires distinguishing between normative and temporal ends. Normative ends are goals that concern processes. Processes are not bounded in time. In contrast, temporal ends are goals that concern events. Events are bounded in time. Playing basketball well is a normative end. Winning a particular basketball game is a temporal end. Satisfying those things that we need in order to live a good life is a normative end. Satisfying a particular need is a temporal end. The difference between normative and temporal ends is the difference between heading in a particular direction and arriving at a particular destination.⁵

“Moral philosopher John Rawls provides a means of judging normative ends. Rawls asks us to imagine what intellectual tools (theories, rules, customs, etc.) we would choose to govern intelligent life if we were ignorant of the circumstances of our birth.⁶ For this imagined original position of ignorance to produce completely just intellectual tools, we must consider what intellectual tools we would want to guide intelligent life if we were completely ignorant of the circumstances of our birth, which includes ignorance of what species we will be and into what era we will be born.⁷ Under these conditions we would want intelligent beings to satisfy their needs ever more efficiently and to devote themselves to helping other life survive and thrive.⁸ This is consistent with Albert Schweitzer’s normative end of reverence for life:

“True ethics are world-wide. All that is ethical goes back to a single principle of morality, namely the maintenance of life at its highest level, and the furtherance of life. The maintenance of one’s own life at the highest level by becoming more and more perfect in spirit, and the maintenance at the highest level of other life by sympathetic, helpful self-devotion to it - this is ethics.”⁹

“If we can agree on the normative end of reverence for life, then we can develop rules for eliminating unethical theories. For example, we can agree on eliminating teleonomic theories based on too narrow a definition of who “we” are.

“We can also eliminate teleonomic theories by developing rules for eliminating theories that fail to help us identify what we need to achieve our ultimate ends. Psychologist Abraham Maslow provides us a means of identifying our “becoming needs,” those things we need to become fully human.¹⁰ He identified these needs by finding the cause of physical and mental illness. In order of immediacy, Maslow speculated that these needs are physiological needs (water, food, shelter, sex), safety (security, order, predictability), love (affection, belongingness), and esteem (self-respect, recognition).

“Whether Maslow got these needs exactly right doesn't matter. What matters is that our needs are complex in that they emerge at more than one level of abstraction. Consider our physical needs and mental needs. Our physical needs emerge at the molecular level. Our need for oxygen, water, and nutrition arise from our molecular processes’ need for oxygen, water, and nutrition. In contrast, our mental needs arise from our minds, not from the molecular processes of our brain cells. The molecular

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

processes of our brain cells have no need for love or self-respect. This suggests that we should eliminate any theory that attributes human motivation to a single level of abstraction. Although such theories can appear to explain much, their incompleteness makes them potentially misleading. They too often fail to help us find the most effective problem to solve. Our teleonomic theories should not focus on our bodies, minds, *or* spirits but rather on our bodies, minds, *and* spirits.

“The remaining theories deserve our tolerance. This tolerance is based on our incomplete knowledge of our ultimate ends and the best means to them rather than on the presumed right to do as we please.

“⁵ Adler, Mortimer, *Ten Philosophical Mistakes*, (New York, Macmillan, 1985), 137.

“⁶ Rawls, John, *A Theory of Justice*, (Cambridge, MA: The Belknap Press of Harvard University, 1971).

“⁷ Anything less than complete ignorance will introduce bias. For example, if we simply imagine that we were born into our current society, we will tend to ignore the potential affect of our behavior on members of other human societies, future generations of humans, and non-human life. Using Rawls’s means, we can argue that incomplete forms of ethical mysticism permit unjust predation and exploitation. We also can argue that they permit unjust limitations on cooperation. The most obvious examples are restrictions on “foreign” trade. These limit cooperation with living members of other societies. Less obvious are actions that effectively limit cooperation with future generations of intelligent life.

Justice requires a recursive agreement between generations similar in form and spirit to the Confucian canon that we ought to pay the debts that we owe our ancestors to our descendants. Each generation must seek to maximize the amount of progress for the turbulence it can bear. Shielding a favored group from change violates this agreement. The basis of this complete concept of justice is not a social contract but rather a contract between all intelligent life for the benefit of all life. Whenever we are tempted to use ‘social justice’ we ought to substitute ‘tribal justice’ in order to remind ourselves and others that we refer to an inherently incomplete concept of justice.

“⁸ Assuming that other intelligent life governs itself using the same intellectual tools, we would give preference to intelligent life. There is nothing more useful to us in progressing toward the ultimate end of a good life for all than other intelligent life progressing toward the ultimate end of a good life for all.

“⁹ Schweitzer, Albert, *Indian Thought and Its Development*, (Gloucester, Mass.: Peter Smith, 1977), 259-62.

“¹⁰ Maslow, Abraham H., *Motivation and Personality*, (New York: Harper & Row, 1987), 15-31.”

Chapter 2, Practical Wisdom and Moral Science, fourth paragraph, end

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Replaced the eleventh footnote:

“¹¹ We can think about this complex interplay, which speculator and philanthropist George Soros calls “reflexivity” (*The Alchemy of Finance*, New York: Simon & Shuster, 1988), as the combination of two universal tendencies of normative intellectual models. The first is the tendency of normative models to become increasingly popular. This is due to their self-fulfilling nature. The second is their tendency to undermine the conditions that make them useful. This is due to their imperfections. When we apply these models repeatedly, they tend to lead us ever further away from ideal paths toward living good lives. Model quality tends to vary directly with the first tendency and inversely with the second. This explains why large speculative bubbles are the exception rather than the rule.

“European philosophers associate the second tendency with Georg Hegel. Chinese philosophers associate it with Lao Tzu. The *Tao Te Ching* opens: “The Way that can be followed is not the true Way. The Way that can be known is not the eternal Way.” In chaos theory terms, the “piling up” of errors in our theories tends to pull us away from “attractors” that “emerge” from our teleonomic programming. Our theories of our teleonomic programming are no more our true teleonomic programming than our rational approximations of pi are pi.

with the following paragraphs and footnote:

“We can think about this complex interplay, which speculator and philanthropist George Soros¹¹ and others in the Hegelian tradition call “reflexivity,” as the combination of two universal tendencies of normative intellectual models. The first is the tendency of normative models to become increasingly popular. This is due to their self-fulfilling nature. The second is their tendency to undermine the conditions that make them useful. This is due to their imperfections. When we apply these models repeatedly, they tend to lead us ever further away from ideal paths toward living good lives. Model quality tends to vary directly with the first tendency and inversely with the second. This explains why large speculative bubbles are the exception rather than the rule.

“Western philosophers associate the second tendency with George Hegel. Chinese philosophers associate it with Lao Tzu. The *Tao Te Ching* opens: “The Way that can be followed is not the true Way. The Way that can be known is not the eternal Way.” In chaos theory terms, the “piling up” of errors in our theories tends to pull us away from “attractors” that “emerge” from our teleonomic programming.”

“¹¹ Soros, George, *The Alchemy of Finance*, New York: Simon & Shuster, 1988.”

Chapter 3, Introduction, second sentence

Changed “better means to chosen subordinate ends” to “better means to **achieve our** chosen subordinate ends.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Chapter 4, Managerial Excellence in Means, second paragraph, fourth sentence

“This process would be neither **smooth** nor costless.”

was changed to:

“This **adjustment** process would be neither **immediate** nor costless.”

Chapter 5, *Consider the Justice of Interventions*, first paragraph, last sentence

“**Authoritarian progressives (authoritarian in means, progressive in ends)** pass laws to prescribe just behavior **and** proscribe unjust behavior whenever the direct benefits of enforcing laws exceed the direct costs of enforcing them.”

was changed to:

““**Rational**” **policy makers** pass laws **that** prescribe just behavior **or** proscribe unjust behavior whenever the direct benefits of enforcing laws exceed the direct costs of enforcing them.”

Chapter 5, *Consider the Justice of Interventions*, third paragraph, last two sentences

“**Liberal progressives (liberal in means, progressive in ends)** **believe** that it is better for governments to err on the side of not passing a just law. **In short**, they **believe** that the government that governs least governs best.”

was changed to:

““Wise” policy makers know that it is better for governments to err on the side of not passing a just law. They **know** that the government that governs least governs best.”

Chapter 5, *Consider the Justice of Interventions*, fourth paragraph, first sentence

Changed “liberal progressive” to ““wise.””

Appendix A / former Chapter 3

The entire appendix / chapter was deleted.

Changes in Version 2004.05.07

Preface, last paragraph, fifth sentence

“(See Appendix: The Toyota System.)”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

was deleted.

Chapter 1, Modern Economics' Blind Spot, last paragraph

“When knowledge **in use is combined in** a network, this local “lock-in” effect can be significant.”

was changed to:

“When **we combine** knowledge **into** a useful network, this local “lock-in” effect can **become** significant.”

Chapter 2, Refining Recursionist Theories, last paragraph

“The **remaining** theories deserve our tolerance. This tolerance is based on our incomplete knowledge of our ultimate ends and the best means to them rather than on the presumed right to do as we please.”

was changed to:

“The theories **that remain after we eliminate unethical and misleading theories** deserve our tolerance. This tolerance is based on our incomplete knowledge of our ultimate ends and the best means to them rather than on the presumed right to do as we please. **We owe it to ourselves not to separate our right to choose from our responsibility to choose wisely.**

“Many today believe in a Creator who has given us rules for living wisely. How do we know pronouncements of Divine Law are the word of the Creator? How do we know that we have interpreted these pronouncements correctly? Jesus tells us to judge them by their usefulness: "By their fruits you shall know them." (Mathew 7:16)”

Chapter 2, Practical Wisdom and Moral Science, sixth paragraph

Made this paragraph into a footnote.

Changed “*The Tao Te Ching*” to “**Arguably, the *Tao Te Ching*.**”

Chapter 2, Practical Wisdom and Moral Science, sixth paragraph, last sentence

Changed ““piling up”” to “compounding.”

Chapter 3, Trade, first paragraph, end

Inserted the following paragraph:

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“Wealth producing organizations emerge from the complexities of trade. In industrial age economies, the most prominent wealth producing organizations were business firms. In information age economies, business firms are less prominent. The need to adapt quickly to change creates the need to lower the fixed costs of trade. As these costs fall, business firms become less “firm.” In rapidly changing industries in which transportation and communications costs remain major factors, industrial clusters become more prominent than firms. Current examples of such clusters include Hollywood and the Silicon Valley. In industries in which transportation and communication costs are no longer major factors, the industry itself takes the leading role. Wall Street, The City, and Chicago’s pits are rapidly becoming “the international financial market” or, more colorfully, “the electronic herd.””

Chapter 4, Introduction

Moved all but the last two sentences of the last paragraph to the end of the chapter under a new section with the title “A Thought Experiment.”

Changed the remaining two sentences:

“ **Before we can begin considering such strategies, we need to understand more about progress from increasing excellence. This chapter describes** the complex relationship between progress from increasing excellence, economic viscosity, and economic turbulence.”

to:

“**The previous chapters have laid the foundation for understanding whole economies in a new way:** the complex relationship between progress from increasing excellence, economic viscosity, and economic turbulence.”

Chapter 4, Increasing Excellence, second paragraph, last sentence

“Because of this, we cannot predict new applications of knowledge accurately.”

was deleted.

Chapter 4, Increasing Excellence, last paragraph, last sentence

“Like the bow wave of a fast moving ship, aggregate transient inflation in a rapidly progressing economy can appear permanent.”

was deleted.

Chapter 4, Economic Viscosity, third paragraph, first sentence

Inserted the sentence:

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“Organizations make most decisions that concern the production of wealth.”

Chapter 4, A Thought Experiment, second paragraph, last sentence

Changed “catastrophe” to “disaster.”

Chapter 4, A Thought Experiment, fifth paragraph, last two sentences

“This is because efficiency in consumption is more important in economies with the potential for rapid learning than in economies without this potential. The better people live, the faster they tend to learn.”

was changed to:

“People living well tend to learn faster than those not living well.”

Afterword, last paragraph, last sentence

Changed “libertine **libertarians**” to “libertines.”

Changes in Version 2004.05.08

Chapter 1, The Recursionist Strategy, first paragraph, third bullet point, third through last sentences

“In theory, **the scope of any decision is boundless in that** all of our decisions concern our ultimate ends. **In practice, we make decisions by means of habit, decision rules (standard procedures, rules of thumb, etc.), and formal deliberations in which we choose subordinate ends. We do not always choose wisely. We can err by choosing decision-making methods poorly; by choosing habits, decision rules, or subordinate ends poorly; or by identifying, judging, or implementing alternatives poorly. In general, the more clearly we think about our ultimate ends and how our decisions relate to them, the better the quality of our decisions.** To think clearly about **the latter**, we need a concept of wealth that concerns what we *need* in order to achieve our ultimate ends. This is in sharp contrast to our current concept of wealth, which concerns what we currently *want*.”

was changed to:

“In theory, all of our decisions concern our ultimate ends. To think clearly about **our ultimate ends**, we need a concept of wealth that concerns what we *need* in order to achieve our ultimate ends. This is in sharp contrast to our current concept of wealth, which concerns what we currently *want*.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Chapter 1, The Recursionist Strategy, fifth paragraph

“We do not decide perfectly. Our mistakes waste time and other resources. However, *given a learning attitude*, we learn from our mistakes. Given a learning attitude, waste is a regrettable by-product of learning through experience.”

was changed to:

“We do not decide perfectly. **In theory, all of our decisions concern our ultimate ends. In practice, we make decisions by means of habit, decision rules (standard procedures, rules of thumb, etc.), and formal deliberations in which we choose subordinate ends. We do not always choose wisely. We err by choosing decision-making methods poorly; by choosing habits, decision rules, or subordinate ends poorly; or by identifying, judging, or implementing alternatives poorly.** Our mistakes waste time and other resources. However, *given a learning attitude*, we learn from our mistakes. Given a learning attitude, waste is a regrettable by-product of learning through experience.”

Chapter 2, Refining Recursionist Theories, seventh footnote

“⁷ **Anything less than complete ignorance will introduce bias. For example, if we simply imagine that we were born into our current society, we will tend to ignore the potential affect of our behavior on members of other human societies, future generations of humans, and non-human life. Using Rawls’s veil of ignorance, we can argue that incomplete forms of justice permit unjust predation and exploitation. We also can argue that they permit unjust limitations on cooperation. The most obvious examples are restrictions on “foreign” trade. These limit cooperation with living members of other societies. Less obvious are actions that effectively limit cooperation with future generations of intelligent life.**

“Justice requires a recursive agreement between generations similar in form and spirit to the Confucian canon that we ought to pay the debts that we owe our ancestors to our descendants. Each generation must seek to maximize the amount of progress for the turbulence it can bear. Shielding a favored group from change violates this agreement. The basis of this complete concept of justice is not a social contract but rather a contract between all intelligent life for the benefit of all life. Whenever we are tempted to use ‘social justice’ we ought to substitute ‘tribal justice’ in order to remind ourselves and others that we refer to an inherently incomplete concept of justice.”

was deleted.

Chapter 2, Refining Recursionist Theories, eighth paragraph, fourth and fifth sentences

“Under these conditions we would want intelligent beings to **satisfy their needs ever more efficiently and to devote themselves to helping other life survive and thrive.**⁸ **This is consistent with** Albert Schweitzer’s normative end of reverence for life:”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“⁸Assuming that other intelligent life governs itself using the same intellectual tools, we would give preference to intelligent life. There is nothing more useful to us in progressing toward the ultimate end of a good life for all than other intelligent life progressing toward the ultimate end of a good life for all.”

was changed to:

“Under these conditions we would want intelligent beings to pursue Albert Schweitzer’s normative end of reverence for life:”

Chapter 2, Refining Recursionist Theories, ninth paragraph

Inserted the following paragraph:

“Schweitzer’s normative end of reverence for life requires a recursive agreement between generations similar in form and spirit to the Confucian canon that we ought to pay the debts that we owe our ancestors to our descendants. Each generation of intelligent life must seek to maximize the amount of progress for the turbulence it can bear. Shielding a favored group from change violates this agreement. From this perspective, whenever we are tempted to use ‘social justice’ we ought to substitute ‘tribal justice’ in order to remind ourselves and others that we refer to an inherently incomplete concept of justice.”

Chapter 2, Practical Wisdom and Moral Science, fifth paragraph, first sentence

“We can think about this complex interplay, which speculator and philanthropist George Soros¹¹ and others in the Hegelian tradition call “reflexivity,” as the combination of two universal tendencies of normative intellectual models.

“¹¹ Soros, George, *The Alchemy of Finance*, New York: Simon & Shuster, 1988.”

was changed to:

“We can think about this complex interplay as the combination of two universal tendencies of normative intellectual models.”

Changes in Version 2004.05.10

Chapter 1, third footnote, second sentence

Changed “owe to ourselves” to “ought.”

Chapter 2, Refining Recursionist Theories, last paragraph

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“Many **today** believe in a Creator who has **given** us rules for living wisely. How do we know pronouncements of Divine Law are the word of the Creator? How do we know that we have interpreted these pronouncements correctly? Jesus tells us to judge them by their usefulness: “By their fruits you shall know them.” **(Mathew 7:16)**”

was changed to:

“**Rawls’s "veil of ignorance" aims at discovering objective truth, which some have described as a God’s eye view of the Universe. It competes with mystical revelation in providing us with this view.** Many, **if not most of us,** believe in a Creator who has **revealed to us** rules for living wisely. How do we know **whether given** pronouncements of Divine Law are the word of the Creator? How do we know that we have interpreted these pronouncements correctly? Jesus tells us to judge these pronouncements by their usefulness: “By their fruits you shall know them.” **We ought to use Rawls’s veil of ignorance to judge pronouncements of Divine Law.**”

and placed in the eighth paragraph, second to last sentence, as a footnote.

Chapter 2, Practical Wisdom and Moral Science, second paragraph, third sentence

“Many people believe that science also provides us with objective truth, **which some describe as a God’s eye view of the universe.**”

was changed to:

“Many people believe that science also provides us with objective truth.”

Chapter 3, Vicious and Virtuous Circles, last paragraph, first sentence

“**Thus, there exists a potential virtuous circle of pleasure-in-acting and pleasure-in-being:** learning to find pleasure in activities that are good for us encourages us to do these activities, **which** in turn gives us the potential to do more.”

was changed to:

“**L**earning to find pleasure in activities that are good for us encourages us to do these activities. **Performing these activities** in turn gives us the potential to do more.”

Chapter 3, Human Capital, Work, and Leisure, last paragraph, last sentence

Changed “one’s” to “our.”

Chapter 4, A Thought Experiment, title

Changed title to “National Income Accounting.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Chapter 5, Economic Viscosity, last paragraph, last sentence

Added the following paragraph:

“Mistrust in the economic system’s ability to recover from severe turbulence also worsens viscosity by reducing the quality of decision-making. We can lessen this mistrust by improving our understanding of the relationship between progress, economic viscosity, and economic turbulence.”

Chapter 5, Economic Turbulence, last paragraph, last sentence

“Ignorance and mistrust constrain us from reducing turbulence.¹

¹ The relationship between economic turbulence and viscosity is a complex one. Economic turbulence makes economies more viscous by reducing people’s trust in the economic system, thereby reducing the quality of decision-making. Viscous economies suffer from greater economic turbulence than fluid ones. The recursive relationship between economic turbulence and viscosity creates a potential vicious circle. We can avoid or break this by improving the quality of decision-making, which includes improving our understanding of economic turbulence.”

was changed to:

“Ignorance of means of trade and mistrust in potential trading partners’ willingness or ability to live up to their role in the means of trade constrain us from reducing turbulence.”

Chapter 5, second footnote

“Popular solutions to this problem of democratic governance include limiting terms in office, campaign contributions, and campaign expenditures. None of these solutions addresses the fundamental problem, which is public ignorance and apathy. The surest solution involves creating a culture that considers creating or maintaining programs and policies that benefit special interests at the expense of the general public and future generations to be as evil as dumping toxic industrial waste down storm sewers. Given such a culture, the problem becomes one of exposing those who create or maintain these barriers to progress.”

was deleted.

Chapter 5, third footnote

“Note that a moral vision is not the same as moral values. Where the former recognizes our ignorance, the latter does not. The failure to distinguish between these two has led some famous liberals and progressives to recommend conservative behaviors. Both liberal Thomas Jefferson and progressive Theodore Roosevelt feared

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

that the accumulation of material wealth would destroy American virtue. Their prescription was a set of behaviors meant to impart the “right” moral values. For Jefferson (prior to the War of 1812) this was the life of a gentleman farmer and for Roosevelt it was a periodic return to the vigorous outdoor life of America’s frontier past. Both were blind to the possibility of discovering behaviors that help us satisfy our needs better than existing ones do. In information age economies, what matters most is vision (and related concepts), not values (and related behaviors).”

was deleted.

Chapter 5, fourth footnote

“This question ought to be of particular interest to wise leaders of traditional cultures. Is it possible to skip the hedonistic stage of development? If so, is it wise to discourage lucid ideas from other cultures?”

was deleted.

Appendix, A *Learning Attitude*, last paragraph, second sentence

“Similarly, Japanese manufacturers practicing kaizen performed apparent miracles by rapidly pushing back their *production possibility frontiers*.”

“*A production possibility frontier is the production output hyperspace surface defined by the most efficient use of a given set of production inputs.*”

was changed to:

“Similarly, Japanese manufacturers practicing kaizen performed apparent miracles by rapidly pushing back their *efficiency frontiers.*”

Changes in Version 2004.05.11

Chapter 1, The Recursionist Strategy, second to last paragraph, fourth sentence

“*Skin tanning, body piercing, dog fighting, gladiatorial games, slavery*, and countless forms of conspicuous consumption spring to mind.”

was changed to:

“*Slavery, skin tanning*, and countless forms of conspicuous consumption spring to mind.”

Chapter 2, *Theories are tools for producing useful knowledge.*, second sentence

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Changed “Newtonian **dynamics**” to “Newtonian **mechanics**.”

Chapter 2, Refining Recursionist Theories, fifth paragraph, fourth sentence

Changed “fully realized” to “*fully realized*.”

Chapter 2, Refining Recursionist Theories, second to last paragraph, last sentence

“This tolerance is based on our incomplete knowledge of our ultimate ends and the best means to them rather than on the **presumed right to do as we please. We owe it to ourselves not to separate our right to choose from our responsibility to choose wisely.**”

was changed to:

“This tolerance is based on our incomplete knowledge of our ultimate ends and the best means to them: **In theory, our natural right to choose arises from our natural responsibility to choose wisely. In practice, learning requires the freedom to make mistakes.**”

Chapter 2, Practical Wisdom and Moral Science, last paragraph, second sentence

“Until all of us act wisely, managing this process well requires distinguishing between **strategies** for helping us to follow our teleonomic programming and **theories** for helping us to predict how others will follow their teleonomic programming.”

was changed to:

“Until all of us act wisely, managing this process well requires distinguishing between **intellectual tools** for helping us to follow our teleonomic programming and **intellectual tools** for helping us to predict how others will follow their teleonomic programming.”

Chapter 5, National Income Accounting, seventh paragraph, last two sentences

“Macroeconomic policies that aim at promoting growth encourage growth at the expense of learning. They discourage progress from increasing excellence in means.”

was deleted.

Chapter 5, National Income Accounting, last paragraph, first sentence

Changed “same problem” to “same **type of** problem.”

Appended sentence to preceding paragraph.

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Changes in Version 2004.05.12

Acknowledgments, fourth paragraph, third sentence

“After **experiencing stagflation and** hearing few objections to Nixon’s wage and price controls, I vowed to take no elective macroeconomics courses.”

was changed to:

“After hearing few objections to Nixon’s wage and price controls **from the Keynesians**, I vowed to take no elective macroeconomics courses.”

Acknowledgments, fifth paragraph, last two sentences

“**The** question quietly dogged me through business school and on through a business career turning around a small business systems company and managing information systems and human resources for a highly successful computer paper manufacturing firm. **I finally gave Gordon his term paper, an early version of this work, seventeen years late.**”

was changed to:

“**I was too shy and too upset to raise this question with Gordon, who likely would have directed me to Friedman’s *The Methodology of Positive Economics*.** The question quietly dogged me through business school and on through a business career turning around a small business systems company and managing information systems and human resources for a highly successful computer paper manufacturing firm.”

Chapter 1, Managerial Excellence in Means, first paragraph, last two sentences

“Instead of thinking about excellence in means as efficiency, we can think about it as the managerial combination of efficiency and effectiveness. **Here**, efficiency is a matter of choosing the means that uses the least valuable resources in achieving a given *subordinate* end, and effectiveness is a matter of choosing subordinate ends well.³

“³ **Note that the distinction between efficiency and effectiveness varies with the scale of the problems being considered. The focus here is on the problems of individual economic agents, which includes the problem of what individuals ought to want of government. The scale is that of microeconomics.**”

was changed to the following:

“Instead of thinking about excellence in means as efficiency, we can think about it as the managerial combination of efficiency and effectiveness, **where (1)** efficiency is a matter of choosing the means that uses the least valuable resources in achieving a

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

given *subordinate* end and (2) effectiveness is a matter of choosing subordinate ends well.

“Imagine a hierarchical organization that defined matters of efficiency and effectiveness entirely in terms of its members’ freedom to decide. All members of this organization would seek to be efficient. All but the person at the very top of the organization would leave matters of effectiveness to their superiors. The distinction between efficiency and effectiveness would depend on one’s level in the hierarchy. As members rose or fell in the hierarchy, what they considered to be matters of efficiency as opposed to matters of effectiveness would change.

“The managerial distinction between efficiency and effectiveness implies a constraint on decision-making. Something constrains us from basing our decisions on our ultimate ends. Regardless of how materially wealthy and politically free we are, we are still constrained by our ignorance of how best to live a good life. The managerial concepts of efficiency and effectiveness allow us to parse the overwhelmingly complex problem of how best to live a good life into smaller, more comprehensible problems.”

Chapter 1, Managerial Excellence in Means, second paragraph, third through eighth sentences

“Mainstream economists use ‘rationality’ as a synonym for “efficiency.” “Rational” people are those who are efficient at satisfying their wants. In contrast, we commonly use ‘wise’ to describe those people who are not only “rational,” but also want the “right” things. “Wise” people are not only efficient in satisfying their wants, they are effective in choosing them. The decision to smoke cigarettes “efficiently” is “rational,” but “foolish.””

was changed to:

“Mainstream economists define “rational” people as those who satisfy their want efficiently. In contrast, we commonly use ‘wise’ to describe those people who not only satisfy their wants efficiently but also want the “right” things. “Wise” people are not only efficient in satisfying their wants, they are effective in choosing them. For example, the decision to smoke cigarettes efficiently is “rational,” but “foolish.””

Chapter 1, The Recursionist Strategy, last paragraph, third footnote

“³ Consider the importance of the rule of law in decision-making: the rule of law increases the quality of decision-making by lowering the uncertainty associated with how authorities will respond to a given circumstance.”

was placed in parentheses and promoted back to the text.

Chapter 2, Theories are tools for producing useful knowledge., second sentence

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Changed “Newtonian **dynamics**” to “Newtonian **mechanics**.”

Chapter 2, *Theories produce predictions and explanations.*, third paragraph, last sentence, footnote

“In decision analysis terms, better predictions improve the quality of a given decision tree structure and better explanations improve the structure of the decision tree.”

was promoted back to the text.

Chapter 2, *Theories are refinements of everyday thinking.*, eighth paragraph, third sentence

Changed “Pope did **when he wrote**” to “Pope did **in his intended epitaph for Newton**.”

Chapter 4, *Avalanche Catastrophes*, end

Added the paragraph:

“Those who would give up essential liberty to purchase a little temporary safety put themselves and others at risk. As Benjamin Franklin observed, they deserve neither liberty nor safety.”

Chapter 4, *National Income Accounting*, fifth paragraph, last sentence

“People living well tend to learn faster than those not living well.”

was changed to:

“Those who fail to focus on efficiency in consumption will fail to realize the full potential of learning.”

Changes in Version 2004.05.15

Chapter 4, *Introduction*

“The previous chapters have laid the foundation for understanding whole economies **in a new way**: the complex relationship between progress from increasing excellence, economic viscosity, and economic turbulence.”

was changed to:

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“The previous chapters have laid the foundation for understanding whole economies as the complex relationship between progress from increasing excellence, economic viscosity, and economic turbulence.”

Chapter 4, Increasing Excellence, third paragraph, second sentence

“Because of the nonlinear way in which we change marginal increases in information into new applications of knowledge, these ripples can interfere with one another.”

was changed to:

“These ripples can interfere with one another in unpredictable ways.”

Chapter 4, Increasing Excellence, third paragraph, last two sentences

“When the pace of change increases, ripples of change begin interfering with each other in unpredictable ways. In short, increasing excellence causes turbulence in the flow of economic resources.”

was changed to:

“Increasing excellence causes turbulence in the flow of economic resources.”

Chapter 4, National Income Accounting, fourth through sixth paragraphs

“Economists face two major technical problems in measuring aggregate production. The first concerns measuring the value of inputs rather than outputs when measuring services. According to this logic, hiring a surgical team to remove a brain tumor for twenty thousand dollars is twice as valuable as hiring the same team to do the same surgery for ten thousand dollars. The second concerns measuring changes in quality of goods and services. How much more valuable is a one thousand dollar personal computer purchased today than a similarly priced personal computer purchased ten years ago? Most do not recognize that its ever increasing potential for rapid learning worsens both. Focusing on efficiency in consumption requires viewing consumer goods and services as means to a good life rather than ends in themselves.”

“Most mainstream economists recognize that the information age’s trend toward services exacerbates the first measurement problem and its trend toward ever higher quality exacerbates the second. Most do not recognize that its ever increasing potential for rapid learning worsens both of these measurement problems.”

“Focusing on efficiency in consumption requires viewing consumer goods and services as means to a good life rather than ends in themselves. The problem of measuring inputs rather than outputs is universal. Worse, measuring the satisfaction of human needs is far more difficult than measuring the satisfaction of consumer wants.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

were reduced to the following footnote:

⁴³ Economists face two major technical problems in measuring aggregate production. The first concerns measuring the value of inputs rather than outputs when measuring services. According to this logic, hiring a surgical team to remove a brain tumor for twenty thousand dollars is twice as valuable as hiring the same team to do the same surgery for ten thousand dollars. The second concerns measuring changes in quality of goods and services. How much more valuable is a one thousand dollar personal computer purchased today than a similarly priced personal computer purchased ten years ago? Focusing on efficiency in consumption requires viewing consumer goods and services as means to a good life rather than ends in themselves. The problem of measuring inputs rather than outputs is universal. Worse, measuring the satisfaction of human needs is far more difficult than measuring the satisfaction of consumer wants.”

Changes in Version 2004.05.18

Chapter 1, Managerial Excellence in Means, second paragraph

“These two managerial terms become meaningful only after we define the scale of what we consider to be a subordinate end. What is a matter of efficiency at one scale is a matter of effectiveness at another: Imagine a hierarchical organization that defined matters of efficiency and effectiveness entirely in terms of its members’ freedom to decide. All members of this organization would seek to be efficient. All but the person at the very top of the organization would leave matters of effectiveness to their superiors. The distinction between efficiency and effectiveness would depend on one’s level in the hierarchy. As members rose or fell in the hierarchy, what they considered to be matters of efficiency as opposed to matters of effectiveness would change.”

was reduced to a footnote.

Chapter 1, Managerial Excellence in Means, new second paragraph

“The managerial **distinction between** efficiency and effectiveness **implies a constraint on decision-making. Something constrains us from basing our decisions on our ultimate ends. Regardless of how materially wealthy and politically free we are, we are still constrained by** our ignorance of how best to **live a good life**. The managerial concepts **of efficiency and effectiveness** allow us to parse the overwhelmingly complex problem of how best to live a good life into smaller, more comprehensible problems.”

was changed to:

“**Our need for** the managerial **concepts of** efficiency and effectiveness **arises from** our ignorance of how best to **achieve our ultimate ends**. **These two** managerial concepts allow us to parse **this** overwhelmingly complex problem into smaller, more tractable problems.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Chapter 4, Introduction

“The **previous** chapters **have laid the foundation for understanding whole economies as** the complex relationship between progress from increasing excellence, economic **viscosity**, and economic **turbulence**.”

was changed to:

“This chapter **presents a normative view of macroeconomics, which focuses on** the complex relationship between progress from increasing excellence, economic **turbulence**, and economic **viscosity**.”

Chapter 4, Increasing Excellence, last paragraph, last sentence

“Everything else being equal, periods of heavy investment in new means tend to coincide with rising prices, and periods of little or no investment in new means tend to coincide with declining ones.”

was deleted.

Chapter 4, Increasing Excellence, last two paragraphs

Reversed order of paragraphs.

Chapter 4, Economic Viscosity; Economic Turbulence

Reversed order of sections.

Chapter 4, Economic Turbulence, third paragraph, first sentence

“**Because** economic turbulence wastes time and other resources, economic agents **potentially** can profit by reducing it.”

was changed to:

“**Economic turbulence** wastes time and other resources. **Hence**, economic agents can profit by reducing it.”

Chapter 4, Economic Turbulence, second paragraph, last sentence

“Again, the worse the decision, the greater economic turbulence is likely to be.”

was deleted.

Chapter 4, Economic Viscosity, third paragraph

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“Organizations make most decisions that concern the production of wealth.

Organizational decision-making is more complex than individual decision-making in that it requires a decision strategy, a plan that outlines who performs what decision-making tasks under what incentives. In formulating a decision strategy, management must consider the practical wisdom of the members of their organization, available information technology, members' time constraints, available decision tools, trade relationships, and a myriad of other factors. For example, management must consider the costs and benefits of involving those implementing a given decision in the problem finding and selection process. To do their jobs well, those implementing the selected alternative must understand what they are required to do. It also helps if they approve of the solution. Including them in the processes of defining the problem, formulating alternatives, and selecting the best alternative increases their understanding and approval. However, it also tends to increase the time and expense of decision-making significantly. In addition to such internal issues, managers must also consider the threats and opportunities the organization faces, which determine what types of decisions the organization must make.”

was changed to:

“Many important decisions occur within organizations. Organizational decision-making is more complex than individual decision-making in that it requires a decision strategy, a plan that outlines who performs what decision-making tasks under what incentives.

“In formulating a decision strategy, management must consider the threats and opportunities the organization faces, which determine what types of decisions the organization must make. Management must also consider the practical wisdom of the members of their organization, available information technology, members' time constraints, available decision tools, trade relationships, and a myriad of other factors. For example, management must consider the costs and benefits of involving those implementing a given decision in the problem finding and selection process. To do their jobs well, those implementing the selected alternative must understand what they are required to do. It also helps if they approve of the solution. Including them in the processes of defining the problem, formulating alternatives, and selecting the best alternative increases their understanding of and enthusiasm for the chosen solution. However, it also tends to increase the time and expense of decision-making significantly.”

Chapter 4, Economic Viscosity, sixth paragraph

Changed “Technological advances” to “Advances.”

Chapter 4, Economic Viscosity, seventh paragraph, first three sentences

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“Increases in trust that speed response also can change decision strategies in ways that reduce turbulence. Again, responding to change rapidly tends to reduce turbulence. One way to speed response is to decentralize decision-making.”

was changed to:

“Advances in trade that decentralize decision-making also can change decision strategies in ways that reduce turbulence.”

Chapter 4, Economic Viscosity, last paragraph

“Mistrust in the economic system’s ability to recover from severe turbulence also worsens viscosity by reducing the quality of decision-making. We can lesson this mistrust by improving our understanding of the relationship between progress, economic viscosity, and economic turbulence.”

was deleted.

Chapter 4, National Income Accounting

This section was deleted.

Changes in Version 2004.05.19

Preface, last paragraph, fourth sentence

Added the sentence:

“(See Appendix A.)”

Chapter 2, Refining Recursionist Theories, tenth paragraph, first sentence

Added the sentence:

“(See Appendix B.)”

Chapter 3, Production, last sentence

Changed “Appendix: **The Toyota System**” to “Appendix **A.**”

Chapter 4, Avalanche Catastrophes, last paragraph, first sentence

Changed “at risk” to “at **greater** risk.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Chapter 4, Avalanche Catastrophes, last paragraph, last sentence

Changed “observed” to “wrote.”

Appendix, title

Changed “Appendix: The Toyota System” to “Appendix A <line break> The Toyota System.”

Appendix B

Added appendix, which was derived from the first half of the former Chapter 3, *Eliminating Teleonomic Theories*.

Appendix C

Added appendix, which was derived from the former last section of Chapter 4, *National Income Accounting*.

Changes in Version 2004.05.20

Chapter 2, Practical Wisdom and Moral Science, second paragraph, last sentence

Changed “our need” to “our **spiritual** need.”

Chapter 2, Practical Wisdom and Moral Science, fifth paragraph, last sentence

“This explains why **large** speculative bubbles **are the exception rather than the rule.**”

was changed to:

“This explains why speculative bubbles **based on a single model (as opposed to a common assumption¹⁰) are relatively rare.**

“¹⁰ **The unsustainable Asian boom and subsequent bust of the nineteen nineties illustrates this difference. The "model story" is that media hype about the coming Asian Century was responsible for causing individual investors to invest too much money in Asia. The "assumption story" is that a simplifying assumption about how capital markets work within the widely used Black Scholes model caused decision-makers to underestimate the risks of investing in less than perfect capital markets.**”

Chapter 2, Practical Wisdom and Moral Science, seventh paragraph, last sentence

“It also requires that they **abandon the quest for objective truth.**”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

was changed to:

“It also requires that they **limit themselves to seeking what is useful in helping us to predict.**”

Chapter 3, Trade, second paragraph, first sentence

“**W**ealth producing organizations emerge from the complexities of trade.”

was changed to:

“**We form wealth producing organizations by forming relatively high fixed cost, relatively low variable cost trading relationships. The nature of these wealth producing organizations emerges from the complexities of trade and production. <paragraph break>**”

Chapter 3, Trade, second paragraph, last sentence

“Wall Street, The City, and Chicago’s pits are rapidly becoming “the international financial market” **or, more colorfully, “the electronic herd.”**”

was changed to:

“Wall Street, The City, and Chicago’s pits are rapidly becoming “the international financial market.” **Within these new organizations, “extraordinary” change is ordinary.**”

Chapter 3, Trust, first paragraph, second sentence

“**In addition, the parties** must trust one another to **live up to** their roles in the trading relationship.”

was changed to:

“**Trading partners** must **also** trust one another to **fulfill** their roles in the trading relationship.”

Chapter 4, Introduction

“This chapter presents a normative view of macroeconomics, which focuses on the **complex** relationship between progress from increasing excellence, **economic turbulence**, and economic **viscosity.**”

was changed to:

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“This chapter presents a normative view of macroeconomics, which focuses on the relationship between progress from increasing excellence and economic **turbulence**.”

Chapter 4, A Crude Look at the Whole, first paragraph, last sentence

“**The system** will **create** what appears to be (but isn't) an exploitable trade-off between transient inflation and unemployment, a Phillips curve.”

was changed to:

“**Except for the occasional major avalanche catastrophe, the economy** will **produce** what appears to be (but isn't) an exploitable trade-off between transient inflation and unemployment, a Phillips curve.”

Changes in Version 2004.05.21

Chapter 1, Managerial Excellence, second paragraph, first two sentences

“**Our need for** the managerial concepts of efficiency and effectiveness **arises from our ignorance of how best to achieve our ultimate ends. These two managerial concepts allow** us to parse **this overwhelmingly complex problem** into smaller, more tractable problems.”

was changed to:

“**The managerial concepts of efficiency and effectiveness help** us to parse **the problem of how best to achieve our ultimate ends** into smaller, more tractable problems. **These two concepts help us to manage our lives. Our need for these concepts arises from our ignorance of our ultimate ends and how best to achieve them.**”

Chapter 4, Economic Viscosity, title

Changed “Viscosity” to “Fluidity.”

Chapter 4, Economic Viscosity, first paragraph, last three sentences

“Economic fluidity concerns the quality of decision-making. **Poor decisions are poor in that they fail to advance us, fail to relieve the stress completely, or create unnecessary stress.** *Increasing the factors of good decision-making tends to **decrease economic viscosity.***”

was changed to:

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“Economic fluidity concerns the quality of decision-making: **decisions are good not only because they increase excellence but also because they relieve stress quickly and efficiently.** Increasing the factors of good decision-making tends to **increase economic fluidity.**”

Chapter 4, Avalanche Catastrophes, fourth paragraph, first sentence

Changed “increasing viscosity” to “decreasing fluidity.”

Changes in Version 2004.05.22

Preface, second paragraph, second sentence

Changed “in Sunday school” to “in **Congregationalist** Sunday school.”

Chapter 1, Managerial Excellence in Means, title

Deleted “in Means.”

Chapter 1, Managerial Excellence, first paragraph, first sentence

“In the EOQ model example above, the problem concerns the unstated assumption that the best means is the most “efficient” means.”

was deleted.

Chapter 1, Managerial Excellence, third paragraph, first sentence

“The distinction between marginalist “**efficiency**” and managerial “**efficiency and effectiveness**” may be made clearer by thinking about the difference between how mainstream economists use ‘rationality’ and how we commonly use ‘wisdom.’”

was changed to:

“The distinction between marginalist and managerial **excellence** may be made clearer by thinking about the difference between how mainstream economists use ‘rationality’ and how we commonly use ‘wisdom.’”

Chapter 1, Managerial Excellence, fourth paragraph, first sentence

“**This managerial** concept of excellence in means **permits** learning.”

was changed to:

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“Unlike the marginalist concept of excellence in means, the managerial concept includes learning by doing.”

Chapter 1, Managerial Excellence, fourth paragraph, fourth through last sentences

“A few years later, the Americans settled on a more versatile *digital* standard. *At the time*, digital television was far more expensive than analog. *However*, the Americans recognized that the cost of digital technology was likely *to continue* to fall much *quicker* than the cost of analog technology. Within a few years advances in digital technology would eliminate most of analog television’s cost advantage. *The “rational” choice was analog, but the “wise” choice was digital. By considering what they would do if they had more knowledge, the Americans found a better problem to solve.*”

was changed to:

“A few years later, the Americans settled on a more versatile *digital* standard. *Although* digital television was far more expensive than analog, the Americans recognized that *digital technology was relatively immature and so* the cost of digital technology was likely to fall much faster than the cost of analog technology. *By considering what they what they were likely to learn, the Americans found a better problem to solve.*”

Chapter 1, The Recursionist Strategy, first paragraph, first sentence

“Changing our concept of excellence in means from *the* marginalist *concept of* efficiency to *the* managerial *concept of* efficiency and effectiveness requires making profound changes to how we think about economics:”

was changed to:

“Changing our concept of excellence in means from marginalist “efficiency” to managerial “efficiency and effectiveness” requires making profound changes to how we think about economics:”

Chapter 1, The Recursionist Strategy, first paragraph, last sentence

“In short, *changing our concept of excellence in means to “efficiency and effectiveness” changes* the universal (global) economic problem *into one of* how we, *the members of the community of beings capable of using the knowledge that we create*, choose to progress toward our ultimate ends.”

was changed to:

“In short, the universal (global) economic problem *concerns* how we *intelligent beings* choose to progress toward our ultimate ends.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Chapter 1, Overview, first sentence

Deleted “all of.”

Chapter 1, Overview, fourth sentence

Changed “*Excellence in Means*” to “*Managerial Excellence*.”

Chapter 1, Overview, last two sentences

“The final two chapters discuss **macroeconomic issues**. *Progress and Turbulence* argues that the **fundamental such** issue ought to be how we can progress toward our ultimate ends with the least amount of economic turbulence **and** *Government Policy* outlines how government policy makers ought to **approach** this issue.”

was changed to:

“The final two chapters discuss **policy**. *Progress and Turbulence* argues that the **primary policy** issue ought to be how we can progress toward our ultimate ends with the least amount of economic turbulence. *Government Policy* outlines how government policy makers ought to **address** this issue.”

Chapter 2, Refining Recursionist Theories, eighth paragraph, second sentence

“Rawls asks us to imagine what **intellectual tools** (theories, rules, customs, etc.) we would choose to govern **intelligent life** if we were ignorant of the circumstances of our birth.”

was changed to:

“Rawls asks us to imagine what theories, rules, customs, etc. we would choose to govern **us** if we were ignorant of the circumstances of our birth.”

Chapter 2, Refining Recursionist Theories, last paragraph, last three sentences

“This tolerance is based on our incomplete knowledge of our ultimate ends and the best means to them: **In theory, our natural right to choose arises from our natural responsibility to choose wisely. In practice, learning requires the freedom to make mistakes.**”

was changed to:

“This tolerance is based on our incomplete knowledge of our ultimate ends and the best means to them **rather than the presumed right to do as we please.**”

Chapter 2, Practical Wisdom and Moral Science, fifth paragraph, last sentence

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Moved footnote reference to end of the sentence. Deleted “(as opposed to a common assumption).”

Chapter 2, footnote 10

“The **unsustainable Asian** boom and subsequent bust of the nineteen nineties **illustrates this difference**. The “**model story**” is that **media hype about the coming Asian Century** was responsible for causing **individual investors to invest too much money in Asia**. The “**assumption story**” is that a simplifying assumption about **how** capital markets **work** within the widely used Black Scholes model caused **decision-makers** to underestimate the risks of investing in less than perfect capital markets.”

was changed to:

“**This is not to say that speculative bubbles caused by common assumptions are rare**. For example, a simplifying assumption about capital markets within the widely used Black-Scholes option pricing model causes **those who use it** to underestimate the risks of investing in less than perfect capital markets.”

Chapter 3, Excellence in Means, title

Changed “**Excellence in Means**” to “**Managerial Excellence**.”

Chapter 3, Introduction, first sentence

“**Excellence in means** is the wise use of resources in **satisfying our needs**.”

was changed to:

“**Managerial excellence** is the wise use of resources in **achieving our ultimate ends**.”

Chapter 3, Consumption, first paragraph, first sentence

“The humanistic ethics of recursionist economics differs markedly from the utilitarian ethics of marginalist economics.”

was deleted.

Chapter 3, Three Common Misbeliefs, first paragraph, fourth sentence

Changed “excellence **in means**” to “**managerial** excellence.”

Chapter 4, A Crude Look at the Whole, first paragraph, last sentence

Deleted “, a Phillips curve.”

Changes in Version 2004.05.24

Chapter 1, Managerial Excellence, first paragraph, first sentence

“In the EOQ model example above, the problem concerns the unstated assumption that the best means is the most “efficient” means.”

was deleted.

Chapter 1, Managerial Excellence, second paragraph

“The managerial concepts of efficiency and effectiveness help us to parse the problem of how best to achieve our ultimate ends into smaller, more tractable problems. These two concepts help us to manage our lives. Our need for these concepts arises from our ignorance of our ultimate ends and how best to achieve them.”

was changed to:

“These managerial concepts help us to parse the problem of how best to achieve our ultimate ends into smaller, more tractable problems. Our need for them arises from our ignorance of our ultimate ends and how best to achieve them.”

and appended to preceding paragraph.

Chapter 1, Managerial Excellence, new second paragraph, first three sentences

“The distinction between marginalist and managerial excellence may be made clearer by thinking about the difference between how mainstream economists use ‘rationality’ and how we commonly use ‘wisdom.’ Mainstream economists define “rational” people as those who satisfy their wants efficiently. In contrast, we commonly use ‘wise’ to describe those people who not only not only satisfy their wants efficiently but also want the “right” things.”

was changed to:

“Mainstream economists commonly use “rational” to describe people who satisfy their wants efficiently. In contrast, we commonly use ‘wise’ to describe those who not only satisfy their wants efficiently but also want the “right” things.”

and appended to preceding paragraph.

Chapter 1, Managerial Excellence, last paragraph, first sentence

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“Unlike the marginalist concept of excellence **in means**, the managerial concept includes learning by doing.”

was changed to:

“Unlike the marginalist concept of excellence, the managerial concept includes learning by doing.”

Chapter 2, Refining Recursionist Theories, fourth paragraph, first sentence

Changed “deficiency” to “problem.”

Changes in Version 2004.05.25

Chapter 1, The Recursionist Strategy, last paragraph, seventh sentence

“(Consider the importance of the rule of law in decision-making: the rule of law increases the quality of decision-making by lowering the uncertainty associated with how authorities will respond to a given circumstance.)”

was returned to a footnote.

Chapter 2, Theories produce predictions and explanations., second paragraph, third and fourth sentences

“Mathematical models of deterministic chaotic systems explain why they **are predictable at low levels of energy and why they** become practically unpredictable at higher levels of energy. **The reason that they become practically unpredictable is that any deviation between actual initial conditions of these systems and our estimates of these conditions grows over time.**”

to:

“Mathematical models of deterministic chaotic systems explain why they are practically unpredictable.”

Chapter 2, Refining Recursionist Theories, footnote 6

“Rawls’s “veil of ignorance” aims at discovering objective truth, which some have described as a God’s eye view of the Universe. It competes with mystical revelation in providing us with this view. Many, if not most of us, believe in a Creator who has revealed to us rules for living wisely. How do we know whether given pronouncements of Divine Law are the word of the Creator? How do we know that we have interpreted these pronouncements correctly? Jesus tells us to judge these

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

pronouncements by their usefulness: “By their fruits you shall know them.” We ought to use Rawls’s veil of ignorance to judge pronouncements of Divine Law.”

was deleted.

Chapter 2, Refining Recursionist Theories, tenth paragraph, first two sentences

“If we can agree on the normative end of reverence for life, then we can develop rules for eliminating unethical theories. (See Appendix B.)”

to

“If we can agree on the normative end of reverence for life (Appendix B), then we can develop rules for eliminating unethical theories.”

Chapter 2, Refining Recursionist Theories, twelfth paragraph, second sentence

Changed “physical **needs** and mental needs” to “physical and mental needs.”

Chapter 2, Practical Wisdom and Moral Science, fourth paragraph plus first sentence of fifth paragraph

“Scientists have long struggled with how best to study evolving systems, **particularly economies. What makes economies especially difficult to study is the fact** that we humans use intellectual models to help us formulate alternatives. The **complex interplay of these** models and reality gives rise to a wide variety of phenomena, which range from relatively simple speculative bubbles to complex “ecosystems” of businesses.

“We can think about this **complex interplay** as the **combination** of two universal tendencies of normative **intellectual** models.”

to

“Scientists have long struggled with how best to study evolving systems. **Studying evolution in human systems is especially difficult in** that we humans use intellectual models to help us formulate alternatives. **The difficulty here is that there is a reflexive / recursive relationship between our normative models and reality: We base normative models on reality. Our actions change reality.**

The **relationship between** our normative models and reality gives rise to a wide variety of phenomena, which range from relatively simple speculative bubbles to complex “ecosystems” of businesses. We can think about this **relationship** as the complex interplay of two universal tendencies of normative models.”

Chapter 2, Practical Wisdom and Moral Science, fifth paragraph, new fifth sentence

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“When we apply these models repeatedly, they tend to lead us ever further away from ideal paths toward living good lives.”

to

“ When we apply these models repeatedly without considering how our recent actions have changed reality, these models tend to lead us ever further away from ideal paths toward living good lives.”

Chapter 2, Practical Wisdom and Moral Science, fifth paragraph, last sentence

“Model quality tends to vary directly with the first tendency and inversely with the second. This explains why speculative bubbles based on a single model are relatively rare.”

was sent to the new footnote 9.

Chapter 3, Three Common Misbeliefs, third paragraph

“A third common belief that hinders increasing excellence in trade is the belief that competition **is the opposite of** cooperation. **Economic** competition is the **market system’s way of** determining which **means are most efficient and effective**. Like **academic peer review**, competition **helps to** insure **that the best methods become part** of the complex web of human knowledge. **Although excessive** competition **can harm** cooperation **and excessive cooperation can harm competition, they are not opposites**. **Increasing one does not necessarily decrease the other**. In fact, increasing competition **often** increases cooperation.”

was changed to:

“A third common belief that hinders increasing excellence in trade is the belief that **increasing** competition **decreases** cooperation. Competition is the **process of** determining which **competitor is best**. **Whether the contest involves breakfast cereals or theories of human behavior**, competition insures the integrity of the complex web of human knowledge. **Increasing** competition **may decrease** cooperation. **However**, increasing competition **may also** increase cooperation.”

Chapter 3, Three Common Misbeliefs, fourth paragraph

“Consider **the roles that competition and cooperation play in** the game of basketball. Playing basketball well requires cooperation in the form of teamwork. **Such** cooperation is more likely to break down when a team is either far ahead of or far behind its opponents, that is, when competition wanes. Further, the need to cooperate does not prevent two players vying for the same position from competing vigorously - they compete for the opportunity to cooperate with their teammates by cooperating well.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

was changed to:

“Consider the game of basketball. Playing basketball well requires cooperation in the form of teamwork. **Players compete by cooperating well. The level of play, including the level of teamwork, tends to rise with closeness of the score.**”

Chapter 4, throughout

Changed “increasing excellence” to “increasing **managerial** excellence.”

Changes in Version 2004.05.27

Chapter 1, footnote 3, second through fourth sentences

“What is a matter of efficiency at one scale is a matter of effectiveness at another: Imagine a hierarchical organization that defined **matters of efficiency and effectiveness entirely** in terms of its members’ freedom to decide. All members **of this organization** would seek to be efficient. All **but** the person at the **very top of the organization** would leave matters of effectiveness to their superiors.”

was changed to:

“What is a matter of efficiency at one **problem** scale is a matter of effectiveness at another: Imagine a hierarchical organization that defines **the scale of problems** in terms of its members’ freedom to decide. All **organization** members would seek to be efficient. All **save** the person at the top would leave matters of effectiveness to their superiors.”

Chapter 1, The Recursionist Strategy, first paragraph, last sentence

“In short, the universal (global) economic problem **concerns** how we intelligent beings choose to progress toward our ultimate ends.”

was changed to:

“In short, the universal (global) economic problem **becomes one of** how we intelligent beings choose to progress toward our ultimate ends.”

Chapter 1, The Recursionist Strategy, second and third paragraphs

“**Mathematicians** solve such open-ended problems by finding **a** process that **they** can apply recursively **an infinite number of times. To prove that there is no highest**

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

number, for example, mathematicians invent a process that takes a number (x) and yields a higher number (y). The simplest such process is to add '1' to the number ($x + 1 = y$). Because there is no limit to how many times this process can be applied, there can be no highest number.

“The obvious choice for a process to apply recursively is decision-making, understood as the process that begins with finding a problem to solve and ends with reviewing the decision process. Decision scientists tell us that formal decision-making consists of (1) finding a problem to solve, (2) identifying alternative solutions, (3) selecting an alternative, (4) implementing the selected alternative, and (5) reviewing the first four steps. Of course, not all decisions warrant the scarce resources necessary for formal decision-making. Less important decisions ought to be made by habit, standard procedure, or decision rules. The decision to employ these cheaper means under certain conditions is itself a decision, which often warrants formal deliberation.”

was changed to:

“We solve such open-ended problems by finding progressive processes that we can apply recursively (repetitively). The obvious choice here is decision-making, understood as the process that begins with finding a problem to solve and ends with reviewing the decision process.

“Formal decision-making consists of (1) finding a problem to solve, (2) identifying alternative solutions, (3) selecting an alternative, (4) implementing the selected alternative, and (5) reviewing the first four steps. Of course, not all decisions warrant the scarce resources necessary for formal decision-making. Less important decisions ought to be made by habit, standard procedure, or decision rules. The decision to employ these cheaper means under certain conditions is itself a decision, which often warrants formal deliberation.”

Chapter 2, Practical Wisdom and Moral Science, sixth paragraph, second and third sentences

Deleted “rightly.”

Chapter 4, Economic Turbulence, third paragraph, last sentence

“For example, because the simultaneous rise in the price of steel and the fall in the price of plastic creates a bigger shock than if these two events occur sequentially, this combination of events is likely to cause a more rapid substitution of plastic for steel.”

was changed to:

“For example, because the simultaneous rise in the price of steel and the fall in the price of plastic creates a bigger shock than if these two events occur sequentially, this combination of events is likely to cause a more rapid substitution of plastic for steel.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Chapter 4, Economic Turbulence, third paragraph, last sentence

“For example, where information about future production requirements allows vendors to increase excellence by reducing turbulence, customers can trade longer delivery periods for price concessions.”

was changed to:

“For example, when information about future production requirements allows manufacturers to reduce turbulence, they can offer their customers discounts in return for extended delivery periods.”

Appendix C

Removed appendix C.

Changes in Version 2004.05.28

Chapter 1, Marginalist Economics' Blind Spot, ninth paragraph, last sentence

“In general, determining the value of useful knowledge is a complex open-ended problem. Thus, the possibility of learning makes what otherwise would be a simple closed-ended problem into a complex open-ended one.”

was changed to:

“The possibility of learning makes what otherwise would be a simple closed-ended problem into a complex open-ended one.”

Chapter 1, Managerial Excellence, third paragraph, third sentence

“After considering the problem for decades, the Japanese settled on a high definition standard that used the same height to width aspect ratio as widescreen movies.”

was changed to:

“ After considering the problem for decades, the Japanese settled on a high definition standard.”

Chapter 1, The Recursionist Strategy, third and fourth paragraphs

“Formal decision-making consists of (1) finding a problem to solve, (2) identifying alternative solutions, (3) selecting an alternative, (4) implementing the selected alternative, and (5) reviewing the first four steps. Of course, not all decisions warrant

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

the scarce resources necessary for formal decision-making. Less important decisions ought to be made by habit, standard procedure, or decision rules. The decision to employ these cheaper means under certain conditions is itself a decision, which often warrants formal deliberation.

“We do not decide perfectly. In theory, all of our decisions concern our ultimate ends. In practice, we make decisions by means of habit, decision rules (standard procedures, rules of thumb, etc.), and formal deliberations in which we choose subordinate ends. We do not always choose wisely. We err by choosing decision-making methods poorly; by choosing habits, decision rules, or subordinate ends poorly; or by identifying, judging, or implementing alternatives poorly. Our mistakes waste time and other resources. However, *given a learning attitude*, we learn from our mistakes. Given a learning attitude, waste is a regrettable by-product of learning through experience.”

was changed to:

“We do not decide perfectly. Our mistakes waste time and other resources. However, *given a learning attitude*, we learn from our mistakes. Given a learning attitude, waste is a regrettable by-product of learning through experience.”

Chapter 2, *Theories produce predictions and explanations.*, second paragraph, second sentence

“Mathematical models of deterministic chaotic systems explain why they become practically unpredictable at higher levels of energy.”

was deleted.

Chapter 2, *Theories produce predictions and explanations.*, third paragraph, last sentence

“In decision analysis terms, better predictions improve the quality of a given decision tree structure and better explanations improve the structure of the decision tree.”

was deleted.

Chapter 2, *Theories are refinements of everyday thinking.*, second paragraph, first sentence

“We can analyze everyday thinking by classifying worldly knowledge into sets based on the processes that we use to refine **worldly knowledge**.”

was changed to:

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“We can analyze everyday thinking by classifying worldly knowledge into sets based on the processes that we use to refine **it**.”

Chapter 2, *Theories are refinements of everyday thinking*, third paragraph, first sentence

Changed “**as either** words or symbols” to “**in** words or symbols.”

Chapter 2, *Theories are refinements of everyday thinking*, third paragraph, last sentence

“This set includes both narratives that help us predict the world and narratives that help us explain the world.”

was deleted.

Chapter 2, *Theories are refinements of everyday thinking*, fifth paragraph, second sentence

Changed “process **that** requires” to “process, **which** requires.”

Chapter 2, *Theories are refinements of everyday thinking*, sixth paragraph, second sentence

Changed “process **that** requires” to “process, **which** requires.”

Chapter 2, *Theories are refinements of everyday thinking*, seventh paragraph, first sentence

Changed “pragmatic **approach to science**” to “pragmatic **methodology**.”

Chapter 2, *Theories are refinements of everyday thinking*, seventh paragraph, last two sentences

“However, we would not have rejected **the idea of the planets traveling around the sun** as a means of explaining the solar system. **Like the digital approach to television in the early nineteen nineties, the heliocentric approach had advantages (simplicity and elegance) over Ptolemaic theories. Also like the digital approach to television in the early nineties, it was less thoroughly explored and so offered a greater possibility for improvement.**”

was changed to:

“However, we would not have rejected **it** as a means of explaining the solar system **because it was simpler, more elegant, and less thoroughly developed than Ptolemaic competitors.**”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Chapter 2, *Theories are refinements of everyday thinking.*, eighth paragraph, last two sentences

“We would **not** have **rejected** it as **either** a theory that predicts or one that explains. **Instead**, we would have used it to cull lesser theories in both categories.”

was changed to:

“We would have **accepted** it as **both** a theory that predicts and one that explains. **We also** would have used it to cull lesser theories in both categories.”

Chapter 2, *Theories are refinements of everyday thinking.*, ninth paragraph, first two sentences

“Kepler’s theory helped Newton formulate his theory of gravity. Given the greater depth and breadth of Newton’s theories **of gravity and mechanics**, we would have accepted them as the leading theories that predict and explain.”

was changed to:

“Kepler’s theory helped Newton formulate his theories of gravity **and mechanics**. Given the greater depth and breadth of Newton’s theories, we would have accepted them as the leading theories that predict and explain.”

Chapter 2, *Refining Recursionist Theories*, seventh paragraph, third and fifth sentences

“Processes are not bounded in time.”

“Events are bounded in time.”

were deleted.

Chapter 2, *Refining Recursionist Theories*, ninth paragraph, second sentence

“Each generation of intelligent life must seek to maximize the amount of progress for the turbulence it can bear. Shielding a favored group from change violates this agreement.”

was deleted.

Chapter 2, *Refining Recursionist Theories*, eleventh paragraph, last sentence

“In order of immediacy, Maslow speculated that these needs are physiological needs (water, food, shelter, sex), safety (security, order, predictability), love (affection, belongingness), and esteem (self-respect, recognition).”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

was deleted.

Chapter 2, Refining Recursionist Theories, twelfth paragraph, first two sentences

“What matters here is that our needs are complex in that they emerge at more than one level of abstraction. Consider our physical and mental needs.”

were deleted.

Chapter 2, Practical Wisdom and Moral Science, sixth paragraph

“The two most prominent schools of evolutionary economics, the Marxist and Austrian schools, reject the need to test economic theories. Mainstream economists criticize these two evolutionary schools for being unscientific. In turn, Marxist and Austrian economists criticize mainstream economics for ignoring evolutionary aspects of economies, e.g., learning by doing. When decision-makers use marginalist intellectual tools to help them formulate alternatives, they create the conditions for catastrophe. Marginalist efficiency cannot long compete against managerial excellence.”

was deleted.

Chapter 3, Pleasure and Pain, last paragraph, fourth sentence

“Relief is the state that arises from satisfying our most basic needs, contentment the one that arises from satisfying higher needs, and bliss the ideal state that arises from satisfying all of our needs.”

was changed to:

“Relief is the state that arises from satisfying our most basic needs; contentment is the state that arises from satisfying our higher needs; and bliss is the ideal state that arises from satisfying all of our needs.”

Chapter 3, Alternatives to Pursuing Happiness, first paragraph, fourth sentence

“In economic parlance, they are happiness “satisficers” rather than “maximizers.””

was deleted.

Chapter 3, Trust, second and third paragraphs

“We form wealth producing organizations by forming relatively high fixed cost, relatively low variable cost trading relationships. The nature of these wealth producing organizations emerges from the complexities of trade and production.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

In industrial age economies, the most prominent wealth producing organizations **were** business firms. In information age economies, business firms **are** less prominent. The need to adapt quickly to change creates the need to lower the fixed costs of trade. As these costs fall, business firms become less “firm.” In rapidly changing **industries** in which transportation and communications costs remain major factors, **industrial** clusters become more prominent than firms. **Current examples of such clusters include Hollywood and the Silicon Valley.** In **industries** in which transportation and communication costs are no longer major factors, the **industry** itself takes the leading role. Wall Street, The City, and Chicago’s pits are rapidly becoming “the international financial market.” **Within these new organizations, “extraordinary” change is ordinary.”**

was changed to:

“Wealth producing organizations **emerge from** relatively high fixed cost, low variable cost trading relationships. In industrial age economies, the most prominent **form of** wealth producing organization **is the** business firm. In information age economies, **the pace of change makes** business firms less prominent. The need to adapt quickly to change creates the need to lower the fixed costs of trade. As these costs fall, business firms become less “firm.” In rapidly changing **sectors** in which transportation and communications costs remain major factors, **geographical** clusters **such as Hollywood and the Silicon Valley** become more prominent than firms. In **sectors** in which transportation and communication costs are no longer major factors, the **sector** itself takes the leading role. Wall Street, The City, and Chicago’s pits are rapidly becoming “the international financial market.”

Chapter 3, Three Common Misbeliefs, first paragraph, fifth sentence

Deleted “not as a learning-by-doing strategy but rather.”

Chapter 3, Three Common Misbeliefs, first paragraph, last sentence

“The Toyota system is much **more** than a collection of techniques for minimizing WIP inventories.”

was changed to:

“The Toyota system is a more than a collection of techniques for minimizing WIP inventories. **It is a strategy for learning by doing.**”

Chapter 3, Three Common Misbeliefs, third paragraph, last two sentences

“**Increasing competition may decrease** cooperation. **However,** increasing competition may **also** increase cooperation.”

was changed to:

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“When managerial excellence includes cooperation, increasing competition may increase cooperation.”

Chapter 3, Three Common Misbeliefs, last paragraph, first sentence

Changed “often increases” to “may increase.”

Changes in Version 2004.06.02

Chapter 1, The Recursionist Strategy, third paragraph, last sentence

Changed “reviewing the decision process” to “reviewing the results of the chosen alternative.”

Chapter 1, The Recursionist Strategy, fourth paragraph, second sentence

Changed “formation of a speculative bubble” to “the speculative bubble.”

Chapter 1, The Recursionist Strategy, fourth paragraph, last sentence

Changed “creating knowledge” to “creating and applying knowledge.”

Chapter 1, The Recursionist Strategy, last paragraph, fourth and fifth sentences

“The second is trust, which is essential for not only efficient exchange but also wise decision-making.⁴ And the third is the liberty to implement the alternative that makes the most productive use of our resources without unjustly interfering with others’ liberty to do the same.”

were changed to:

“The second is trust⁴ and the third is the liberty to implement the alternative that makes the most productive use of our resources without unjustly interfering with others’ liberty to do the same.”

Chapter 2, *Theories produce predictions and explanations.*, second paragraph, third through last sentences

“In order to be able to predict these systems in their chaotic mode, we would have to know initial conditions with infinite precision. Our inability to know initial conditions precisely limits our ability to predict the trajectory of the system, the “weather.” In the long term, the best we can hope to do is to predict the bounds of the trajectory, the “climate.””

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

were changed to:

“In their chaotic mode, **tiny disturbances to these systems grow rapidly. In the long term, predicting “the weather” (trajectory in phase space) requires knowing initial conditions with infinite precision, which is impossible.** The best we can hope to do is to predict the **“climate” (bounds of the trajectory in phase space).**”

Chapter 2, *Theories that explain are partial descriptions.*

“***Theories that explain are partial descriptions.*** Ideally, a single theory explains and predicts everything about a system: theories that explain are simply theories that predict “written backwards.” We test theories that explain by how well they predict. Practically, theories that explain are partial descriptions of our world that we use to find problems to solve. We test theories by how well they perform their function. We test theories that explain by how well they help us find problems to solve.”

was deleted.

Chapter 2, *Theories are refinements of everyday thinking.*, second paragraph, third sentence

Added the Venn diagram label (1) to the end of the sentence.

Chapter 2, *Theories are refinements of everyday thinking.*, Venn diagram

Modified the Venn diagram to show universal set as (U).

Copied Venn diagram (see below).

Modified the Venn diagram to show only a single set of scientific theories.

Chapter 2, *Theories are refinements of everyday thinking.*, third and fourth paragraphs

“We refine the universal set of worldly knowledge, (1), by rejecting all worldly knowledge that we cannot express in words or symbols. What remains is the set of worldly narratives, (2).

“We refine the set of all narratives **that help us explain the world** by rejecting those that fail to meet **certain rules and standards of construction.** We call narratives that conform to these rules “logical” and those that conform to these standards “elegant” or “beautiful.” What remains is the set of philosophical theories.”

were changed to:

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“We refine the universal set of worldly knowledge by rejecting all worldly knowledge that we cannot express in words or symbols. What remains is the set of worldly narratives, (2). We refine the set of **worldly** narratives by rejecting those that fail to meet standards for **logic and elegance**. What remains is the set of philosophical theories, (3). **We also refine worldly narratives by testing them against empirical standards. What remains is the set of scientific theories, (4).**”

Chapter 2, *Theories are refinements of everyday thinking.*, fifth and sixth paragraphs

“We refine the set of testable philosophical theories by rejecting those that fail to meet empirical standards for explaining. Unlike previous refinements, this one is an ongoing process that requires us not only to reject candidates but also to reject previously accepted theories in light of new information and newly accepted theories. Practically, we test philosophical theories by how well they help us find problems to solve. After rejecting philosophical theories that fail to meet our empirical criteria, we are left with the set of scientific theories that explain, (4). This set includes Darwin’s theory of evolution and Wegener’s theory of plate tectonics.

“We refine the set of narratives that predict by rejecting those that fail to meet empirical standards for predicting. This is a matter of producing and testing hypotheses. Like the previous refinement process, this one is an ongoing process, which requires us not only to reject candidates but also to reject previously accepted theories in light of new information and newly accepted theories. What remains is the set of scientific theories that predict, (5). Good researchers distinguish between these scientific theories and those that explain. When talking about scientific theories that predict but do not explain, they are careful to say that a set of factors *correlates with* rather than *causes* the result.”

were changed to:

“Much testing of worldly narratives has become the province of specialists. Specialists invent ever more sophisticated (1) tools for enhancing our senses, e.g., telescopes, microscopes, cloud chambers, and particle accelerators; (2) tools for enhancing our common sense, e.g., formal logic, algebra, analytical geometry, calculus, statistics, and computer simulation; and (3) procedures for testing, i.e., scientific methodologies.

“Most specialists today believe that science involves testing theories that produce predictions. This conception of science falls short of Einstein’s standard of refined everyday thinking, which produces not only predictions but also problems to solve. Specialists can meet Einstein’s standard by rejecting those philosophical theories that fail to meet empirical standards for finding problems to solve. What remains is the set of scientific theories that explain (4). This set includes Darwin’s theory of evolution and Wegener’s theory of plate tectonics. The wise distinguish between these theories and those that predict: when talking about scientific theories that predict but do not explain, they are careful to say that a set of factors *correlates with* rather than *causes* the result.

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

[4 set Venn diagram here.]

“Ideally, a single theory explains and predicts everything about a system: theories that explain are simply theories that predict “written backwards.” We test theories that explain by how well they predict. Practically, theories that explain are partial descriptions of our world that we use to find problems to solve. We test theories by how well they perform their function. We test theories that explain by how well they help us find problems to solve.”

Chapter 2, *Theories are refinements of everyday thinking.*, last paragraph, first sentence

Changed “Today, scientists” to “Physicists today.”

Chapter 2, Refining Recursionist Theories, fourth paragraph, last sentence

“*Teleonomic theories*, theories that look to our internal programming to explain what motivates us, satisfy both of these conditions.”

were changed to

“Theories that look to our internal programming to explain what motivates us, *which biologists call teleonomic theories*, satisfy both of these conditions.”

Chapter 2, Refining Recursionist Theories, eleventh paragraph, last two sentences, twelfth paragraph, first two sentences

“Psychologist Abraham Maslow provides us a means of identifying our “*becoming needs*,” those things we need to become fully human.⁷ He identified these needs by finding the cause of physical and mental illness.

“Our physical *needs emerge at the molecular level*. Our need for oxygen, water, and nutrition arise from our molecular processes’ need for oxygen, water, and nutrition.”

were changed to

“Psychologist Abraham Maslow provides us *with* a means of *identifying our physical and mental needs*.⁷ Our physical needs for oxygen, water, and nutrition arise from our molecular processes’ *needs* for oxygen, water, and nutrition.”

Chapter 2, Refining Recursionist Theories, eleventh paragraph, sixth sentence

Changed “potentially misleading” to “misleading.”

Chapter 2, Practical Wisdom and Moral Science, second paragraph

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“One of the most valuable results of this ongoing human research program was the invention of science. Science provides us with tested knowledge that is useful in living good lives. Many people believe that science also provides us with objective truth. The search for objective truth helps us to satisfy our spiritual need to be part of something greater than ourselves.”

was changed to:

“One of the most valuable results of this ongoing human research program was the invention of the division of labor. The division of labor in turn led to countless other inventions, including the invention of ever better scientific methodologies and technologies.”

Chapter 2, Practical Wisdom and Moral Science, third paragraph

“The essence of science is testing. Over the centuries the means of testing has evolved. The earliest scientists tested simple systems using nothing more than their unaided senses and common sense. Later scientists invented tools to enhance their senses. These tools include microscopes, telescopes, cloud chambers, particle accelerators, and gene mapping equipment. They also invented tools to enhance their common sense. These tools include calculus, statistics, and computer simulation.”

was deleted.

Chapter 2, footnote 8

Deleted “The Way that can be followed is not the true Way.”

Merged this footnote with footnote 9.

Chapter 2, Practical Wisdom and Moral Science, fifth paragraph, last sentence

Changed “seeking what is useful in helping us to predict” to “scientific theories that predict.”

Chapter 2, Practical Wisdom and Moral Science, fourth paragraph, last sentence

Changed “these models tend” to “they tend.”

Chapter 2, Practical Wisdom and Moral Science, fifth paragraph, second sentence

Changed “Friedman’s” to “His.”

Chapter 5, Introduction, first paragraph, last two sentences

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“A marginalist view of government tends to blind us to the possibility of increasing justice by increasing practical wisdom. Marginalist economics concerns self-interest, not ever more enlightened self-interest.”

were deleted.

The remaining paragraph was merged with the second paragraph.

Chapter 5, Conclusion, first paragraph, second sentence

“We can see this distinction in manufacturing, where those who see inventory control in terms of the EOQ model favor **highly centralized production control (e.g., MRP systems)** and those who see it in terms of the rapid tool-setting model favor **more decentralized control (e.g., the Toyota Production System).**”

was changed to:

“We can see this distinction in manufacturing, where those who see inventory control in terms of the EOQ model favor **MRP and MRP II** systems and those who see it in terms of the rapid tool-setting model favor the Toyota Production System.”

Changes in Version 2004.06.04

Chapter 1, The Recursive Strategy, second paragraph

“We solve **such** open-ended problems by **finding** progressive processes **that we can apply recursively (repetitively)**. The obvious choice **here** is decision-making, understood as the process that begins with finding a problem to solve and ends with reviewing the results of the chosen alternative.”

was changed to:

“We solve open-ended problems by **repeatedly applying** progressive processes, **processes that move us ever closer to the solution**. The obvious choice **for a progressive process to solve this open-ended problem** is decision-making, understood as the process that begins with finding a problem to solve and ends with reviewing the results of the chosen alternative.”

Chapter 1, The Recursionist Strategy, last paragraph, third sentence

Changed “our ability to **think clearly, choose prudently, and behave continently**” to “our **willingness and** ability to **act wisely**.”

Chapter 2, *Theories produce predictions and explanations.*, fifth paragraph

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“Consider the problem of **managing the production** of a product that has large variations in **sales volume**. **The most obvious problem is determining how to improve sales volume predictions**. Better predictions of **sales volume** may lead us to more efficient production schedules. In contrast, better explanations may lead us to better (more effective) problems to solve. **With a better explanation, we might find ways to decrease variations in sales volumes, such as helping customers manage their inventories or offering discounts on contracts with long delivery times. We also might find ways to keep our production capacity filled during slack times, such as finding new uses for the product or finding new products to fill unused production capacity.** For example, to keep sponge cake machinery busy during the off-season for strawberries, James Dewar invented the Hostess Twinkie. **Finally, we might find ways to reorganize our manufacturing process so that we can produce efficiently over a wide range of sales volumes.** In current business vernacular, better explanations help us to “think outside the box.””

was changed to:

“Consider the problem of **producing** a product that has large variations in **demand**. Better predictions of **demand** may lead us to more efficient production schedules. In contrast, better explanations may lead us to better (more effective) problems to solve. For example, to keep sponge cake machinery busy during the off-season for strawberries, James Dewar invented the Hostess Twinkie. In current business vernacular, better explanations help us to “think outside the box.””

Chapter 2, *Theories produce predictions and explanations.*, sixth paragraph, second through fourth sentences

“Economics differs from the physical sciences in that theories about our behavior tend to be self-fulfilling. We saw this in the EOQ model example, where the assumption that we do not learn from experience tended to blind us to the possibility of learning through experience. This self-fulfilling property of theories creates the need to separate economic theories into those that predict and those that explain.”

were deleted.

Chapter 2, *Theories produce predictions and explanations.*, sixth paragraph, last sentence

“Again, we need to explain based not on *how we expect we will act*, but on *how the wise would act*.”

was deleted.

Chapter 2, *Theories are refinements of everyday thinking.*, fourth paragraph, first sentence

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Changed “specialists **in testing**” to “specialists.”

Chapter 2, Refining Recursionist Theories, eleventh paragraph, third sentence

Changed “Psychologist Abraham Maslow” to “**For example, psychologist Abraham Maslow.**”

Chapter 2, Refining Recursionist Theories, eleventh paragraph, fourth through last sentences

“In contrast, our mental needs arise from our minds, not from the molecular processes of our brain cells. **The molecular processes of our brain cells have no need for love or self-respect. This suggests that we should eliminate any theory that attributes human motivation to a single level of abstraction. Although such theories can appear to explain much, their incompleteness makes them misleading. They too often fail to help us find the most effective problem to solve. Our teleonomic theories should not focus on our bodies, minds, *or* spirits but rather on our bodies, minds, *and* spirits.**”

were changed to:

“In contrast, our mental needs **for love and self-respect** arise from our minds, not from the molecular processes of our brain cells. ***We ought to eliminate any theory that attributes human motivation to a single level of abstraction.*** Teleonomic theories should focus on our bodies, minds, ***and*** spirits, **not** on our bodies, **on our** minds, ***or on our*** spirits.”

Chapter 2, Practical Wisdom and Moral Science, second and third paragraphs, first sentence

Changed “evol**ution in** human systems” to “evol**ving** human systems.”

Chapter 2, footnote 8, second paragraph, last sentence

“For example, a simplifying assumption **about capital markets within the widely used Black-Scholes option pricing model causes those who use it to underestimate the risks of investing in less than perfect capital markets.**”

were changed to

“For example, **by blinding users to the risk of market failure**, a simplifying assumption in the Black-Scholes option pricing model **created the late twentieth century developing market bubble.**”

Chapter 3, *Vicious and Virtuous Circles*, second and third paragraphs, first sentence

Changed “itself, but” to “itself but.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Chapter 3, *Vicious and Virtuous Circles*, second paragraph, last sentence

“They want the pleasure of swimming for itself, but also **want it** because it makes them want an activity that satisfies a current need.”

was changed to:

“They want the pleasure of swimming **not only** for itself but also because it makes them want an activity that satisfies a current need.”

Chapter 3, *Two Means of Pursuing Happiness*, fourth paragraph, last sentence

“Not surprisingly, **the world’s** Alexanders prefer Aristotle’s ethics, **while the world’s** Einsteins prefer Spinoza’s.”

was changed to:

“Not surprisingly, **aspiring** Alexanders prefer Aristotle’s ethics **and aspiring** Einsteins prefer Spinoza’s.”

Chapter 3, *Profits*, first sentence

“**Profits are the result of** acting wisely. The profits from consuming wisely are just as real as those from trading or producing wisely. In the words of Benjamin Franklin, “A penny saved is a penny earned.” To live wisely is to seek to live ever more wisely. We ought to be entrepreneurs in the business of life.”

was changed to:

“**We profit from** acting wisely. The profits from consuming wisely are just as real as those from trading or producing wisely. In the words of Benjamin Franklin, “A penny saved is a penny earned.”

“To live wisely is to seek to live ever more wisely. We ought to be entrepreneurs in the business of life.”

Chapter 4, *Increasing Managerial Excellence*, third paragraph

“Each **implementation of better means** causes a ripple of change to flow through an economy. These ripples **can** interfere with one another in unpredictable ways. For example, **because** the simultaneous rise in the price of steel and **the** fall in the price of plastic **creates a bigger shock than if these two events occur sequentially, this combination of events** is likely to cause a more rapid substitution of plastic for steel. **Increasing managerial excellence causes turbulence in the flow of economic resources.**”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

was changed to:

“Each **increase in managerial excellence** causes a ripple of change to flow through an economy. These ripples interfere with one another in unpredictable ways. For example, the simultaneous rise in the price of steel and fall in the price of plastic is likely to cause a more rapid substitution of plastic for steel **than if the price of steel rises a week after the price of plastic falls.**”

Chapter 4, Increasing Managerial Excellence, fourth paragraph, first sentence

“**Implementing better means** has both deflationary and inflationary effects. In itself, a better means increases the amount or quality of goods, and so is deflationary. However, implementing it requires reallocating resources, a process that uses scarce resources without increasing output, and so is inflationary. Because the cost of reallocating resources tends to overwhelm the benefit of the new means in the short run, **implementing better means tends** to create a “bow wave” of inflation. The greater the cost of reallocating resources, the greater this bow wave is likely to be.”

was changed to:

“**Increasing managerial excellence** has both deflationary and inflationary effects. In itself, a better means **either decreases the demand for goods and services or increases the amount or quality of goods and services available for sale**, and so is deflationary. However, implementing it requires reallocating resources, a process that uses scarce resources without increasing output, and so is inflationary. Because the cost of reallocating resources tends to overwhelm the benefit of the new means in the short run, **increasing managerial excellence** tends to create a “bow wave” of inflation. The greater the cost of reallocating resources, the greater this bow wave is likely to be.”

Chapter 4, Increasing Managerial Excellence, fifth, first sentence

Changed “innovation” to “increasing managerial excellence.”

Chapter 4, Increasing Managerial Excellence, last two paragraphs

The order of these paragraphs was reversed.

Chapter 4, Economic Turbulence, third and fourth paragraphs

“Economic turbulence wastes time and other resources. **Hence, economic agents can profit by reducing it. Capturing the benefit of reducing turbulence may require trading with those hurt by it. For example, where information about future production requirements allows vendors to increase excellence by reducing turbulence, customers can trade longer delivery periods for price concessions.**”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“Capturing the benefit of reducing turbulence requires knowledge of how to do so. When capturing this benefit requires trading with those hurt by turbulence, it also requires the trust necessary to make such trades. Ignorance of means of trade and mistrust in potential trading partners’ willingness or ability to live up to their role in the means of trade constrain us from reducing turbulence.”

were changed to:

“Economic turbulence wastes time and other resources. **Reducing it is beneficial.** Capturing the benefit of reducing turbulence requires knowledge of how to do so. When capturing this benefit requires trading with those hurt by turbulence, it also requires the trust necessary to make such trades. Ignorance of means of trade and mistrust in potential trading partners’ willingness or ability to live up to their role in the means of trade constrain us from reducing turbulence.”

Chapter 4, Economic Fluidity, fifth paragraph, last sentence

“(Such compensation systems address John Maynard Keynes’s problem of “sticky wages.”)”

was deleted.

Chapter 5, Decentralization, first paragraph, first two sentences

“**Learning how to progress toward our ultimate ends ever more wisely, like learning how to manufacture batches of different goods ever more wisely, is an infinitely large, amorphous problem. Such problems yield more readily to many average minds acting in unison to a few exceptional minds directing many hands.**”

were changed to:

“**The Toyota experience teaches us that collective ignorance yields more readily to jazz harmony than to formal orchestration.**”

Chapter 5, Consider the Justice of Interventions, second paragraph, second sentence

Changed “From this perspective” to “Further.”

Chapter 5, Control the Money Supply Passively, second paragraph, second sentence

“Monetary authorities ought to choose the policy that increases the quality of decision-making most efficiently.”

was deleted.

Chapter 5, Free Association, first paragraph, last sentence

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Changed “countervailing” to “less noble.”

Changes in Version 2004.06.08

Chapter 5, Conclusion, second paragraph, first sentence

“From the recursionist perspective, all current economic theories, including those of the modern Austrians, are too simple in that they include the assumption that “consumer preferences” are either fixed or change in ways that are independent of economic policy.”

was changed to:

“All current economic theories, including those of the Austrian school, are too simple in that they include the assumption that “consumer preferences” are either fixed or change in ways that are independent of economic policy.”

Chapter 5, Conclusion, second paragraph, second sentence

Deleted “and MRP II.”

Chapter 5, Conclusion, third paragraph, first sentence

“In a just system, our right to choose cannot be separated from our responsibility to live wisely.”

was changed to:

“We cannot separate our right to choose from our responsibility to live wisely.”

and appended to the end of the second paragraph.

Appendix B, Introduction, third paragraph

Inserted the paragraph:

“Materialists find support for their position in analytical science, science that reduces the world to elemental parts and basic principles. The greatest mystery here is what lies behind and beneath quantum level phenomena. Dualists find support for their position in synthetic science, science that focuses on how structures and phenomena emerge from the interactions of elemental parts and basic principles. Here, the greatest mystery is what lies behind and beyond consciousness. Beneath and beyond both great mysteries is an even greater one: does what lies beyond our consciousness connect us to what lies beneath quantum level phenomena?”

Changes in Version 2004.06.10

Preface, third paragraph, second sentence

Changed “**means of** refining” to “**strategy for** refining.”

Chapter 2, Refining Everyday Thinking, first paragraph, first sentence

Changed “slowly tightening a loose theory of means” to “refining our ultimate ends.”

Chapter 2, *Theories produce predictions and explanations.*, second paragraph, third sentence

“In their chaotic mode, tiny disturbances to these systems grow rapidly.”

was deleted.

Chapter 2, *Theories produce predictions and explanations.*, third paragraph, first sentence

Changed “:” to “.”

Chapter 2, Refining Recursionist Theories, title

Changed “Recursionist Theories” to “Ultimate Ends.”

Chapter 2, Refining Ultimate Ends, fifth paragraph, fifth sentence

Changed “*fully realized*” to “fully realized.”

Chapter 2, Refining Ultimate Ends, sixth paragraph, last two sentences

“Rather than basing evolutionary explanations on what we currently want, which ignores the possibility of solving problems by learning to live more wisely, we can base them on the set of all teleonomic theories. Over time we can tighten these loose explanations by eliminating members of this set.”

were returned to standard formatting.

Chapter 2, Refining Ultimate Ends, seventh paragraph, fourth sentence

Changed “**In contrast,** temporal ends” to “**T**emporal ends.”

Chapter 2, Practical Wisdom and Moral Science, third paragraph

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“Scientists have long struggled with how best to study evolving systems. **Studying** evolving **human** systems **is especially difficult in** that **we** humans use intellectual **models** to **help us** formulate alternatives. The difficulty **here** is that there is a reflexive / recursive relationship between normative models and reality: We base normative models on reality. Our actions change reality.”

were changed to:

“Scientists have long struggled with how best to study evolving systems, **particularly** evolving systems that **involve humans using** intellectual **tools** to formulate alternatives. The **great** difficulty **in studying these human systems** is that there is a **complex** (reflexive / recursive) relationship between normative models and reality: We base our normative models on reality. Our actions change reality.”

Chapter 2, Practical Wisdom and Moral Science, fourth paragraph, second sentence

Changed “**complex** interplay” to “interplay.”

Chapter 2, eighth footnote, first paragraph, first two sentences

“Western philosophers associate the second tendency with George Hegel. Chinese philosophers associate it with Lao Tzu. **Arguably, the *Tao Te Ching* opens:**”

were changed to:

“Western philosophers associate the second tendency with George Hegel’s **internal contradictions of theories**. Chinese philosophers associate it with Lao Tzu:”

Chapter 2, eighth footnote, second paragraph, last two sentences

“This is not to say that speculative bubbles **caused by** common assumptions are rare. **For example, by blinding users to the risk of market failure**, a simplifying assumption in the Black-Scholes option pricing model created the late twentieth century developing market bubble.”

were changed to:

“This is not to say that speculative bubbles **based on** common assumptions are rare. **Arguably**, a simplifying assumption in the Black-Scholes option pricing model created the late twentieth century developing market bubble **by blinding users to the risk of markets failing to clear**.”

Chapter 5, Moral Vision, second paragraph, fourth sentence

Changed “as **we accumulate commonwealth (commonweal / general welfare)**” to “as **the general level of wealth rises**.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Chapter 5, Just Taxation, sixth paragraph, first sentence

“A just system ensures both minimum standards of welfare and ever wiser means of producing commonwealth.”

was changed to:

“A just system ensures both minimum standards of individual welfare and ever wiser means of raising the general level of welfare.”

Chapter 6, first paragraph, last two sentences

“To progress readily, we need recursionist theories, theories that produce loose evolutionary explanations of means founded on teleonomic theories of ends. Over time, we can tighten recursionist theories and the explanations they produce by discovering more about our needs and the best means of satisfying them.”

was changed to:

“We need a strategy for learning what it is we ought to seek and how best to do so.”

Chapter 6, second paragraph

“Recursionist theories differ markedly from current economic theories. Where current marginalist microeconomic theories help us evaluate alternatives, recursionist theories help us formulate them. And where current macroeconomic theories attempt to help government officials achieve their ends, recursionist theories help officials design decision strategies to help all of us pursue happiness with a minimum amount of wasteful turbulence in the flow of resources. They tell us that we should judge the interventions of governments rather than the actions of individuals and that we should err on the side of not intervening justly rather than intervening unjustly. Equally important, they remind us that wise decision-making requires moral vision.”

was changed to:

“The recursionist strategy differs markedly from current economic theories. Where current marginalist microeconomic theories help us evaluate alternatives, the recursionist strategy helps us formulate them. And where current macroeconomic theories attempt to help government officials achieve their ends, the recursionist strategy helps policy makers design decision strategies to help all of us pursue happiness with a minimum amount of wasteful turbulence in the flow of resources. It tells us that policy makers should judge interventions rather than the actions of individuals and that they should err on the side of not intervening justly rather than intervening unjustly. Equally important, it reminds us that wise decision-making requires moral vision.”

Changes in Version 2004.06.12

Chapter 2, Refining Ultimate Ends, ninth paragraph, second sentence

Changed “From this perspective” to “Hence.”

Chapter 2, Refining Ultimate Ends, first paragraph, last sentence

“The **only** school of economics that comes close to producing such theories **is the Austrian school of evolutionary economics.**”

was appended to the second paragraph and changed to:

“The **Austrian** school of **evolutionary** economics comes close to producing such theories.”

Chapter 2, Refining Ultimate Ends, fourth paragraph, second sentence

“To do so, the explanations that we use to **help us** satisfy our needs and **the explanations** that we use to **define** our needs must both fit together and work together.”

was changed to:

“To do so, the explanations that we use to **think about how best to** satisfy our needs and **those** that we use to **identify** our needs must both fit together and work together.”

Chapter 2, Refining Ultimate Ends, second to last paragraph, last sentence

“**Teleonomic theories should** focus on **our** bodies, minds, *and* spirits, not on our bodies, on **our** minds, *or* on **our** spirits.”

was made into a new paragraph and changed to:

“**When considering what they need to live a good life, the wise** focus on **their** bodies, minds, *and* spirits, not on **their** bodies, on **their** minds, *or* on **their** spirits.”

Chapter 3, Pleasure and Pain, fourth paragraph, last two sentences

“Finding pleasure in an activity can improve the performance of that activity. Becoming absorbed in **swimming** can help **competitive swimmers swim faster**. **Performance** usually suffers when something painful, such as a **sore shoulder**, interferes with becoming absorbed in **swimming**. Similarly, becoming absorbed in **thinking makes it easier to solve problems**. We **are** usually **less able to solve a problem if** something painful, such as a headache, impedes losing ourselves in **thinking**.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

were changed to:

“Finding pleasure in an activity can improve the performance of that activity. Becoming absorbed in thinking can help **us think better**. **Our ability to think clearly** usually suffers when something painful, such as a headache, interferes with becoming absorbed in thinking. Similarly, becoming absorbed in **a sporting activity helps us perform better**. We usually **perform less well when** something painful, such as a sore shoulder, impedes losing ourselves in **sport**.”

Chapter 4, Avalanche Catastrophes, last paragraph, last sentence

Changed “As Benjamin Franklin wrote” to “As Benjamin Franklin wrote **to the Governor of Pennsylvania in 1755**.”

Chapter 6, third paragraph, first sentence

Changed “moral vision **inherent in recursionist economics**” to “**recursionist** moral vision.”

Appendix B, Introduction, third paragraph

Changed “consciousness” to “**normal** consciousness” in all.

Changes in Version 2004.06.15

Acknowledgments, last paragraph, end

Added the following:

“Hayek warned us to beware of scientism. The Oxford English Dictionary defines scientism as “a term applied (freq. in a derogatory manner) to a belief in the omnipotence of scientific knowledge and techniques; also to the view that the methods of study appropriate to physical science can replace those useful in other fields such as philosophy and, esp., human behaviour and the social sciences.” Given the work of such skeptics as David Hume, Frank Knight, Karl Popper, Thomas Kuhn, Imre Lakatos, and Paul Feyerabend, I prefer to define scientism as the magical quest for objective truth, a God’s eye view of the Universe, solely by means of understanding isolated bits amenable to complete understanding. Scientism is true belief in scientific analysis.”

Chapter 2, *Theories are refinements of everyday thinking*, fifth paragraph, third sentence

Changed “**S**pecialists can **meet**” to “**These** specialists can **rise to**.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Chapter 2, *Theories are refinements of everyday thinking.*, sixth paragraph, third sentence

Changed “partial descriptions of **our world**” to “partial descriptions of **reality**.”

Changes in Version 2004.06.22

Chapter 4, A Crude Look at the Whole, last paragraph

“We ought to learn to thrive in winds and survive in gales of creative destruction.”

was changed to:

“**Conclusion**

During the last half of the twentieth century many intellectuals preached that (1) wealth is consumer goods and the capacity to produce consumer goods; (2) the *wealthy* are willing to give up some wealth producing liberty in order to purchase economic security and (3) socialism would eliminate what Joseph Schumpeter called capitalism’s “gales of creative destruction.”

“These widely-held beliefs are not the most useful for progressing toward the ultimate end of reverence for life. More useful are the beliefs that (1) wealth is what we need to progress toward the ultimate end of reverence for life; (2) the *wise* are willing to accept economic turbulence as a regrettable consequence of progress; and (3) socialism postpones turbulence by retarding progress, which is unwise as well as unjust.

“**We ought to learn to live ever more wisely.** We ought to learn to thrive in winds and survive in gales of creative destruction.

Changes in Version 2004.06.28

Acknowledgments, last paragraph, second to last sentence

Added “George Soros.”

Chapter 3, Pleasure and Pain, second paragraph, end

Added the sentence:

“We commonly refer to pleasure-in-acting as "pleasure" and pleasure-in-being as "joy."”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Chapter 3, Pleasure and Pain, last paragraph, third sentence

“Pleasure-in-being, which we commonly call “joy,” ranges from relief to bliss.”

was changed to:

“Joy ranges from relief to bliss.”

Chapter 3, Alternatives to Pursuing Happiness, last paragraph, last sentence

“In the Taoist tradition, yin corresponds to pursuing pleasure-in-being (joy); yang corresponds to pursuing pleasure-in-acting (pleasurable activity); and the balance of yin and yang corresponds to pursuing happiness.”

was changed to:

“In the Taoist tradition, yin corresponds to pursuing joy (pleasure-in-being); yang corresponds to pursuing pleasure (pleasure-in-acting); and the balance of yin and yang corresponds to pursuing happiness.”

Chapter 3, Pleasure and Pain, entire chapter

Changed “pleasure-in-acting” to “pleasure.”

Changed “pleasure-in-being” to “joy.”

with exceptions noted above.

Appendix B, Introduction, third paragraph

“Materialists find support for their position in analytical science, science that reduces the world to elemental parts and basic principles. The greatest mystery here is what lies behind and beneath quantum level phenomena. Dualists find support for their position in synthetic science, science that focuses on how structures and phenomena emerge from the interactions of elemental parts and basic principles. Here, the greatest mystery is what lies behind and beyond normal consciousness. Beneath and beyond both great mysteries is an even greater one: does what lies beyond our normal consciousness connect us to what lies beneath quantum level phenomena?”

was reduced to a footnote to the second paragraph and changed to:

“Materialists find support for their position in analytical science, science that reduces the world to elemental parts and basic principles. The greatest mystery here is what lies behind and beneath quantum level phenomena. Dualists find support for their position in synthetic science, science that focuses on how structures and phenomena emerge from the interactions of elemental parts and basic principles. Here, the greatest

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

mystery is what lies behind and beyond normal consciousness. Beneath and beyond both great mysteries is an even greater one: does what lies beyond our normal consciousness connect us to what lies beneath quantum level phenomena?

“Foolish materialists claim that such recent developments in biology as the creation of a virus containing synthetic genetic material prove the materialist case. The dualist counter is that the potential for life exists everywhere. Wise materialists claim that their view is more scientific because materialist assumptions are easier to disprove than dualist assumptions are. Wise dualists counter that this does not mean that materialist assumptions are true, only that they have yet to be proven false.”

Appendix B, Introduction, last paragraph, first sentence

“If we seek what is true in the way that mainstream economists use this term, the materialist and dualist belief systems are irreconcilable: If the fundamental materialist proposition that no part of us survives the death of our bodies is true, then the fundamental dualist proposition that some part of us survives the death of our bodies must be false.”

was changed to:

“*If we seek what is true*, the materialist and dualist belief systems are irreconcilable. If the fundamental materialist proposition that no part of us survives the death of our bodies is true, then the fundamental dualist proposition that some part of us survives the death of our bodies must be false.”

Appendix B, Introduction, last paragraph, last sentence

“However, if we seek what is useful, we can reconcile these two logically incompatible belief systems by finding a common ultimate end.”

was made into a new paragraph and changed to:

“*If instead we seek what is useful*, we can reconcile these two logically incompatible belief systems by finding a common ultimate end.”

Changes in Version 2004.06.29

Chapter 5, Conclusion

Inserted the section on foreign policy.

Afterword, last paragraph, last sentence

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Changed: “an end **in itself** rather than a **means to justice**” to “an end rather than a **critical factor in wise decision-making.**”

Changes in Version 2004.06.30

Preface, last paragraph, last sentence

Changed: “in Congregationalist Sunday school” to “from my parents.”

Acknowledgments, fifth paragraph, last sentence

“I was too shy and too upset to raise this **question** with Gordon, who likely would have directed me to Friedman’s *The Methodology of Positive Economics*. This **question** quietly dogged me through business school and on through a business career turning around a small business systems company and managing information systems and human resources for a highly successful computer paper manufacturing firm.”

was changed to:

“I was too shy and too upset to raise this **issue** with Gordon, who likely would have directed me to **Milton** Friedman’s *The Methodology of Positive Economics*. This **issue** quietly dogged me through business school and on through a business career turning around a small business systems company and managing information systems and human resources for a highly successful computer paper manufacturing firm.”

Acknowledgments, last paragraph, second to last sentence

Changed: “bits” to “parts.”

Chapter 2, Refining Ultimate Ends, last sentence

Added the following footnote:

“⁸ True believers in scientific analysis will deny this. They believe that we can understand complex adaptive systems completely by understanding the smallest parts completely. The more enlightened true believers recognize that phenomena worthy of attention emerge at higher levels of abstraction, but deny that what emerges at higher levels can affect the lowest level. We can test this belief. We can test whether the willful acts of our minds can affect our brain chemistry. We also can test whether macroeconomic policies can affect the culture underlying microeconomic behavior.”

Chapter 2, Foreign Policy, title

Changed title to “International Cooperation.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Chapter 5, Conclusion

“Economist Thomas Sowell observes that those who view the world as being relatively simple tend to support centralization and those who view it as relatively complex tend to support decentralization.² We can see this distinction in manufacturing, where those who see inventory control in terms of the EOQ model favor MRP systems and those who see it in terms of the rapid tool-setting model favor the Toyota Production System. This conflict is one of vision, of how people perceive the world. The centralizers perceive a world filled with simple problems that are not being solved, hence they desire to give someone who recognizes the problems they see the power to solve them. In contrast, the decentralizers perceive a world filled with complex problems, which are best solved through decentralization.

“All current economic theories, including those of the Austrian school, are too simple in that they include the assumption that “consumer preferences” are either fixed or change in ways that are independent of economic policy. Relaxing this simplifying assumption strengthens the case for decentralization. However, the case for decentralization itself depends on the assumption that we seek to live wisely. We cannot separate our right to choose from our responsibility to live wisely.

“In theory, we naturally seek to live wisely, which gives us the natural right to choose how best to do so. In practice, the greater our propensity to live wisely, the more freedom we deserve. The strategy put forth in this work aims to increase this propensity.”

was changed to:

“In previous chapters we learned that non-knowledge resources are poor substitutes for inexhaustible knowledge resources. We increase excellence by replacing non-knowledge resources with knowledge resources.

“If we all were to choose wisely all of the time, no government would be necessary. Government is a substitute for practical wisdom.

“Non-knowledge government resources are poor substitutes for the inexhaustible knowledge resource of practical wisdom. We increase excellence by replacing non-knowledge government resources with practical wisdom.”

Appendix A, Ever Leaner Production, last paragraph, last sentence

Changed: “a bit about” to “something about.”

Afterword, fourth paragraph, third sentence

“For example, several years ago there was a series of commuter airline crashes.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

was changed to:

“We can see this distinction in manufacturing, where those who see inventory control in terms of the EOQ model favor MRP systems and those who see it in terms of the rapid tool-setting model favor the Toyota Production System. We can also see it in the response to a series of commuter airline crashes several years ago.”

Afterword, fifth paragraph

Inserted the paragraph:

“From this perspective, all current economic theories, including those of the Austrian school, are too simple in that they include the assumption that “consumer preferences” are either fixed or change in ways that are independent of economic policy. Relaxing this simplifying assumption strengthens the case for decentralization. However, the case for decentralization itself depends on the assumption that we seek to live wisely. We cannot separate our right to choose from our responsibility to live wisely.”

Afterword, last paragraph, first sentence

“My information age political and cultural position is difficult to describe to those with an industrial age vision.”

was changed to:

“My political and cultural position is difficult to describe to those who do not share my information age perspective.”

Afterword, end

Inserted three paragraphs on religion and reductionism.

Changes in Version 2004.07.09

Chapter 1, The Recursionist Strategy, fourth paragraph

Changed “embed pockets of ignorance” to “can embed mistakes” in the first sentence.

Changed “ignorance” to “mistakes” in the balance of the paragraph.

Chapter 5, Introduction, first paragraph, first two sentences

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“The normative end of government is justice. From the recursionist perspective put forth in this work, government policy makers administer justice by deciding who makes what decisions under what incentives.”

were changed to:

“We increase excellence by replacing non-knowledge resources with knowledge resources. Government policy makers help us increase excellence by administering justice, which is a matter of deciding who makes what decisions under what incentives. Excellence in administering justice is a matter of continuously improving the quality of decision-making.”

Chapter 5, Introduction, second paragraph, last sentence

Changed “and just taxation” to “international cooperation, and just taxation.”

Chapter 5, Just Taxation, fifth paragraph

“The case for eliminating personal income taxes is more problematic. If we were as lucid as angels, we would share our wealth wisely. There would be no need for governments to force us to do so. We are not as lucid as angels. This does not mean that we ought to demand that governments force us to share our wealth. Rather we ought to demand that governments encourage us to become ever more lucid.”

was changed to:

“The case for eliminating personal income taxes is more problematic. It is also more enlightening in that it gets to the heart of the reason that we have governments.

“If we were as lucid as angels, if we were to choose wisely all of the time, no government would be necessary. *Government is an imperfect substitute for perfect practical wisdom.*

“If we were as lucid as angels, we would share our wealth wisely. There would be no need for governments to force us to do so. Unfortunately, we are not as lucid as angels. This does not mean that we ought to demand that governments expend non-knowledge resources in order to force us to share our wealth. Non-knowledge government resources are poor substitutes for the inexhaustible knowledge resource of practical wisdom. We ought to demand that governments encourage us to become ever more lucid.”

Chapter 5, Just Taxation, fifth paragraph, second to last sentence

Changed “government program” to “government safety net program.”

Chapter 5, International Cooperation, first paragraph

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“**The world of nation states is not a global village.** Nation states are not leviathans with human characteristics. Nevertheless, the basic principles underlying international affairs are the same as those underlying domestic affairs. **The governments of nation states** ought to consider the justice of intervening in the affairs of other states rather than the justice of the actions of other states. They **also** ought to consider the **great benefits** of living under the rule of international law as opposed to the rule of nation states. Most importantly, international cooperation **ought** to be a means **to wise** decision-making and not an end in itself.”

was changed to:

“Nation states are not leviathans with human characteristics **living in a global village.** Nevertheless, the basic principles underlying international affairs are the same as those underlying domestic affairs. **Government officials** ought to consider the justice of intervening in the affairs of other states rather than the justice of the actions of other states. They ought to consider the **advantages** of living under the rule of international law rather than the rule of nation states. Most importantly, **they ought to consider** international cooperation to be a means **of improving the quality of** decision-making and not an end in itself.”

Chapter 5, International Cooperation, second paragraph, second sentence

“Inevitably, **the forces** of hedonism and tradition will cynically accept the mission **of improving decision-making** while **crippling** the means **to fulfill** it.”

was changed to:

“Inevitably, **groups dominated by** hedonism and tradition will cynically accept the **most lucid of** missions while **denying** the means **of accomplishing** it.”

Chapter 5, International Cooperation, second paragraph, fourth sentence, end

Added: “, which mocked the Preamble.”

Chapter 5, International Cooperation, second paragraph, last sentence

“**The only ignorance as difficult to remove as ignorance** locked into **Constitutional law is ignorance locked into widely held interpretations of Divine law.**”

was deleted.

Chapter 5, International Cooperation

This section was moved ahead of the Just Taxation section.

Chapter 5, Conclusion

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“In previous chapters we learned that non-knowledge resources are poor substitutes for inexhaustible knowledge resources. We increase excellence by replacing non-knowledge resources with knowledge resources.

“If we all were to choose wisely all of the time, no government would be necessary. Government is a substitute for practical wisdom.

“Non-knowledge government resources are poor substitutes for the inexhaustible knowledge resource of practical wisdom. We increase excellence by replacing these resources with practical wisdom.”

was changed to:

“Government policy makers administer justice by deciding who makes what decisions under what incentives. Excellence in administering justice is a matter of continuously improving the quality of decision-making, *which includes increasing excellence by replacing non-knowledge government resources with practical wisdom.* Until we understand this and choose our policy makers accordingly, we will not get the kind of government that encourages the better angels of our natures.”

Afterword, eleventh paragraph, first sentence

Added “(Appendix B).”

Appendix B, first footnote, second paragraph, last sentence

Changed “Wise dualists counter” to “The wise dualist counter is.”

Changes in Version 2004.07.10

Acknowledgments, fifth paragraph, last sentence

“This issue quietly dogged me through business school and on through a business career turning around a small business systems company and managing information systems and human resources for a highly successful computer paper manufacturing firm.”

was changed to:

“This issue quietly dogged me through business school and on through my business career.”

Chapter 1, title quotation, attribution

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Added the footnote:

⁴¹ Jaspers, Karl, *Socrates, Buddha, Confucius, Jesus*, (New York: Harcourt Brace Jovanovich, 1962), 52.”

Chapter 2, eighth footnote, third sentence

Changed “but deny” to “but **they** deny.”

Chapter 3, title quotation, attribution

Added the footnote:

⁴¹ *The Bhagavad Gita*. Trans. Barbara Stoler Miller. (New York: Bantam Books, 1986), fourteenth teaching, paragraph 18.”

Chapter 4, title quotation, attribution

Added the footnote:

⁴¹ Richardson, Lewis F., *Weather Prediction by Numerical Processes*, (London: Cambridge University Press, 1922).”

Chapter 5, title quotation, attribution

Changed attribution from “*James Madison*” to “*Publius*.”

Added the footnote:

⁴¹ *The Federalist Papers*, No. 51. Note that historians cannot agree on whether James Madison or Alexander Hamilton wrote the *New York Packet* article of February 8, 1788 titled “The Structure of the Government Must Furnish the Proper Checks and Balances Between the Different Departments.””

Afterword, title quotation, attribution

Added the footnote:

⁴¹ Pierson, George W., *Tocqueville and Beaumont in America*, (New York: Oxford University Press, 1938), 119.”

Appendix A, title quotation, attribution

Added the footnote:

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

⁴¹ Browning, Robert, “Andrea Del Sarto,” in *Robert Browning: A Critical Edition of the Major Works* (Oxford and New York: Oxford University Press, 1977), line 78.”

Afterword, eleventh paragraph, first sentence

Added “(Appendix B).”

Changes in Version 2004.07.20

Preface, seventh paragraph

Changed “**is likely to** be resisted by **intellectuals**” to “**will** be resisted by **scholars**” in the first sentence.

Changed “**Only a strategy for solving an open-ended problem**” to “**A strategy**” in the fifth sentence.

Acknowledgments, fifth paragraph, last sentence

“This issue quietly dogged me through business school and on through **a business career turning around a small business systems company and managing information systems and human resources for a highly successful computer paper manufacturing firm.**”

was changed to:

“This issue quietly dogged me through business school and on through **my** business career.”

Acknowledgments, last paragraph, third sentence

“Hayek **warned us to beware of** scientism.”

was changed to:

“Hayek **condemned** scientism.”

Acknowledgments, last paragraph, second to last sentence

“**Given the work of such skeptics as David Hume, Frank Knight, Karl Popper, Thomas Kuhn, Imre Lakatos, Paul Feyerabend, and George Soros, I prefer to define scientism as the magical** quest for objective truth, a God’s eye view of the Universe, solely by means of understanding isolated parts amenable to complete understanding.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

was changed to:

“Members of the cult of scientism satisfy their human need for mystical oneness by pursuing a quixotic quest for objective truth, a God’s eye view of the Universe, solely by means of understanding isolated parts amenable to complete understanding.”

Chapter 2, eighth footnote, last six sentences

“True believers in scientific analysis will deny this. They believe that we can understand complex adaptive systems completely by understanding the smallest parts completely. The more enlightened true believers recognize that phenomena worthy of attention emerge at higher levels of abstraction, but they deny that what emerges at higher levels can affect the lowest level. We can test this belief. We can test whether the willful acts of our minds can affect our brain chemistry. We also can test whether macroeconomic policies can affect the culture underlying microeconomic behavior.”

were changed to:

“True believers in scientific analysis (reductionism) deny a core belief of scientific synthesis (holism), which is that phenomena that emerge at higher levels of abstraction can affect what happens at the lowest level of abstraction. To reject useful theories simply because they conflict with a key assumption of the reductionist research program is foolish. Further, to reject any theory because it conflicts with the reductionist research program is unscientific. Science involves rejecting theories by disproving hypotheses, not by whether they fit a particular research program. If the defining characteristic of religious cults is unthinking adherence to dogma in the pursuit of religious ends, scientism is a religious cult.”

Chapter 2, Refining Ultimate Ends, second to last paragraph

“When considering what they need to live a good life, the wise focus on their bodies, minds, *and* spirits, not on their bodies, on their minds, *or* on their spirits.”

was merged into the preceding paragraph.

Chapter 5, Decentralization, first paragraph, first sentence

“The Toyota experience teaches us that collective ignorance yields more readily to jazz harmony than to formal orchestration.”

was changed to:

“The Toyota experience teaches us that efficiency frontiers yield more readily to jazz harmony than to formal orchestration.”

Chapter 5, International Cooperation, second paragraph

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“The great danger of establishing a confederal or federal solution to the problem of improving the quality of decision-making **today** is not that the solution will fail but that it will succeed. Inevitably, groups **dominated by hedonism and tradition** will cynically accept the most lucid of missions while denying the means of accomplishing it. The classic example is the so-called three-fifths **compromise** in the United States Constitution, which counted slaves as three-fifths of a person for the purpose of representation in the House of Representatives **and Electoral College**. This **compromise** guaranteed that the slave states could prevent the federal government from interfering with the “peculiar institution” of slavery, which mocked the Preamble. It took the bloodiest war in United States history to **erase this compromise** from the Constitution.”

was changed to:

“**At this point in our development** the great danger of establishing a confederal or federal solution to the problem of improving the quality of decision-making is not that the solution will fail but that it will succeed. Inevitably, **special interest** groups will cynically accept the most lucid of missions while **effectively** denying the means of accomplishing it. The classic example is the so-called three-fifths **clause** in the United States Constitution, which counted slaves as three-fifths of a person for the purpose of representation in the House of Representatives. This **clause** guaranteed that the slave states could prevent the federal government from interfering with the “peculiar institution” of slavery, which mocked the Preamble. It took the bloodiest war in United States history to **cleanse this stain** from the Constitution.”

Appendix C

Restored Appendix C, National Income Accounting.

Changes in Version 2004.07.26

Chapter 4, Increasing Managerial Excellence, last paragraph, last sentence

“Another reason is a major innovation can trigger **hundreds of other innovations**, e.g., the **switch from vacuum tubes to solid-state electronics** has spawned **many new inventions and innovations** in **countless** existing products.”

was changed to:

“Another reason is a major invention can trigger **waves of increases in excellence**, e.g., the **invention of the transistor** spawned **countless inventions, innovations, and improvements**.”

Chapter 4, Economic Turbulence, second paragraph, fourth sentence

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“However, if they fail to adopt the new process, **which encourages new firms to** enter the industry, the result is likely to be inflation followed by unemployment.”

was changed to:

“However, if they fail to adopt the new process **and other firms enter the industry to exploit this mistake**, the result is likely to be **a rise in the inflation rate and a fall in the unemployment rate** followed by **a fall in the inflation rate and a rise in the unemployment rate**.”

Chapter 4, Economic Turbulence, second paragraph, last sentence

Changed “**transient** inflation **will** be” to “inflation **is likely to** be.”

Chapter 4, Economic Turbulence, last paragraph, second sentence

“Reducing it is beneficial.”

was deleted.

Afterword, second to last paragraph, third sentence

Deleted “, which requires complementing scientific analysis with synthesis.”

Afterword, second to last paragraph, fourth sentence

“Accordingly, I have **combined a wide variety of views of practical wisdom in order to** develop a strategy for learning what we ought to seek and how best to do so.”

was changed to:

“Accordingly, I have developed **a holistic** strategy for learning more about what we ought to seek and how best to do so.”

Changes in Version 2004.07.31

Preface, fifth paragraph

Changed “*rational approximations*” to “rational approximations.”

Changed “*strategies*” to “strategies.”

Preface, sixth paragraph

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Changed “**general** plan” to “plan.”

Preface, second to last paragraph, fifth sentence

Changed “**A** strategy” to “**However, a** strategy.”

Chapter 2, *Theories produce predictions and explanations.*, second paragraph, last sentence

Changed “**bounds** of the trajectory” to “**pattern** of the trajectory.”

Chapter 2, *Theories are refinements of everyday thinking.*

Relabeled Venn diagram.

Changed “tested them against” to “rejecting those that fail to meet” in the third paragraph, fifth sentence.

Changed “testing of worldly narratives” to “scientific testing” in the fourth paragraph, first sentence.

Changed “procedures for testing” to “procedures” in the fourth paragraph, last sentence.

Changed “procedures for testing” to “testing procedures” in the fourth paragraph, last sentence.

Inserted “ $(C \cap B)$ ” in the fifth paragraph and “ $(C \cap D)$ ” in the sixth paragraph.

Deleted “(“Spirographic”)” in the seventh paragraph.

Chapter 2, *Theories are refinements of everyday thinking.*, fifth paragraph, second two sentences

“This conception of science falls short of Einstein’s **standard** of refined everyday thinking, **which produces not only predictions but also** problems to solve. **These specialists can rise to Einstein’s standard** by rejecting those philosophical theories that fail to meet empirical standards for finding problems to solve.”

were changed to:

“This conception of science falls short of Einstein’s **ideal** of refined everyday thinking **in that it forces us to choose between science and philosophy in helping us to find the best** problem to solve. **We can correct this** by rejecting philosophical theories that fail to meet empirical standards for finding problems to solve.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Chapter 2, footnote 9, second paragraph, last sentence

“Arguably, a simplifying assumption in the Black-Scholes option pricing model created the late twentieth century developing market bubble by blinding users to the risk of markets failing to clear.”

was changed to:

“These include the assumptions that there will always be greater fools around to buy overpriced investments and that investment markets will clear.”

Chapter 5, Introduction, second paragraph, last sentence

Changed “international cooperation, and just taxation” to “just taxation, and international cooperation.”

Chapter 5, International Cooperation

Moved section back to behind the Just Taxation section.

Chapter 5, Moral Vision, first paragraph, last sentence

Changed “just government” to “wise government.”

Chapter 5, International Cooperation, first paragraph, last sentence

Changed “and not” to “rather than.”

Chapter 5, International Cooperation, second paragraph, first two sentences

“At this point in our development the great danger of establishing a confederal or federal government solution to the problem of improving the quality of decision-making is not that the solution will fail but that it will succeed. Inevitably, special interest groups will cynically accept the most lucid of missions while effectively denying the means of accomplishing it.”

were changed to:

“Many today advocate the creation of a federal world government. This solution to the problem of improving the quality of decision-making is problematic. In theory, government is an expensive substitute for practical wisdom. In practice, special interest groups will cynically accept the most lucid of missions while effectively denying the means of accomplishing it.”

Chapter 5, Conclusion, second sentence

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Changed “*which includes increasing excellence by replacing **non-knowledge** government **resources** with practical wisdom.*” to “*which includes increasing excellence by replacing government with practical wisdom.*”

Chapter 6, first paragraph, last sentence

Changed “what **it is** we ought to seek and how best to **do so**” to “what we ought to seek and how best to **seek it.**”

Chapter 6, second paragraph, last sentence

Changed “**Equally important**, it reminds” to “**It also** reminds.”

Afterword, first paragraph, second sentence

Changed “**it** on the Internet **five** years” to “**working drafts** on the Internet **six** years.”

Afterword, first paragraph, last two sentences

“With **philosophers of science and** scientists investigating complex adaptive systems, it is the importance of **world-view, concepts, and methodology**. With **economists**, it is how **teleonomic theories can be both positive and normative.**”

were changed to:

“With scientists investigating complex adaptive systems, it is the importance of **distinguishing between theories that predict and those that explain**. With **philosophers, especially philosophers of science**, it is how **decision-oriented pragmatism reconciles idealism and pragmatism.**”

Afterword, eleventh paragraph, fifth sentence

“The **clear and present danger** of ignoring this need is the flourishing of secular religions, **e.g., Marxist-Leninism and Maoism, and more exclusive socialist religions, e.g., Nazism, Fascism, and Baathism.**”

was changed to:

“The danger of ignoring this need is the flourishing of **deeply flawed means of satisfying it. These include such** secular religions **as** Marxist-Leninism, Nazism, Fascism, **Maoism**, and Baathism.”

Changes in Version 2004.08.07

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Preface, sixth paragraph, second sentence

“Rather than **trying to find the best theory** of what we ought to seek, we **can create a strategy** for learning what we ought to seek.”

was appended to previous paragraph and changed to:

“Rather than **seeking ever better theories** of what we ought to seek, we **ought to seek ever better strategies** for learning what we ought to seek.”

Chapter 1, Mainstream Economics’ Blind Spot, fourth paragraph, last two sentences

“**The marginalist concept of** wealth **means** consumer goods and the resources for producing **them**, where consumer goods are those goods and services that we buy to satisfy our wants and desires. **The marginalist concept of** efficiency **means** excellence in the use of scarce resources at achieving a given end: the most efficient means to a given end is the one that uses the least valuable scarce resources.”

were changed to:

“**Mainstream economists define** ‘wealth’ **to mean** consumer goods and the resources for producing **consumer goods**, where consumer goods are those goods and services that we buy to satisfy our wants and desires. **They define** ‘efficiency’ **to mean** excellence in the use of scarce resources at achieving a given end: the most efficient means to a given end is the one that uses the least valuable scarce resources.”

Chapter 1, Marginalist Efficiency, first paragraph, first sentence

Changed “efficiency” to “**marginalist** efficiency.”

Chapter 4, Conclusion, first two paragraphs

Merged paragraphs.

Chapter 5, Introduction, first paragraph

“**We increase excellence by replacing non-knowledge resources with knowledge resources. Government** policy makers help us **increase excellence by administering justice, which is a matter of** deciding who makes what decisions under what incentives. Excellence in **administering justice** is a matter of continuously improving the quality of decision-making.”

was changed to:

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“Policy makers decide who makes what decisions under what incentives. Excellence in policy making is a matter of continuously improving the quality of decision-making.”

and merged with second paragraph.

Chapter 5, Conclusion, first paragraph, second sentence

Changed “administering justice” to “policy making.”

Afterword, last paragraph, first sentence

Changed “traditional” to “positivist.”

Appendix B, Practical Benefits of Magical Mysticism, last paragraph, last sentence

Added the footnote:

“⁹ The flood of discordant images and metaphors that sometimes accompanies an epiphany suggests movement through intermediate states beneath normal consciousness.”

Appendix C, last paragraph, fifth sentence

Changed “Macroeconomic policies that focus on aggregate production” to “Policies that focus on national income.”

Appendix C, last paragraph, second to last sentence

“National income accountants face the same type of problem Soviet central planners faced.”

was changed to:

“Policy makers relying on national income statistics face the same type of problem Soviet policy makers faced.”

Changes in Version 2004.08.31

Preface, first paragraph, first sentence

Added “, a quarter century ago.”

Preface, fifth paragraph

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Returned paragraph break at the end of the second sentence.

Changed “ought to” back to “can” in the fourth sentence.

Chapter 1, Mainstream Economics' Blind Spot, eighth paragraph

“We can model rapid tool-setting by **adding** an expected learning curve, a function that relates the expected cost of setting up to the cumulative experience of setting up, **to the EOQ model. The standard assumption for expected learning curves is that doubling experience lowers costs** by some constant percentage, e.g., **each time experience doubles, the cost of setting up drops by** twenty percent.”

was changed to:

“We can model rapid tool-setting by **combining an EOQ model with** an expected learning curve, a function that relates the expected cost of setting up to the cumulative experience of setting up. **Based on empirical studies and Bayesian models of learning, each time that we double our experience we can reasonably expect setup costs to drop** by some constant percentage, e.g., twenty percent.”

Chapter 1, Mainstream Economics' Blind Spot, last paragraph, second to last sentence

Changed “three **days** ago” to “three **weeks** ago.”

Chapter 2, Theories produce predictions and explanations., fifth paragraph

Changed “problem of **producing**” to “problem of **balancing the production**” in the first sentence.

Changed “**better** (more effective)” to “more effective” in the third sentence.

Chapter 2, Theories are refinements of everyday thinking., second through sixth paragraphs

Dropped comma between explanation and parenthetical Venn diagram label throughout.

Chapter 2, Theories are refinements of everyday thinking., fourth paragraph, last sentence

Changed “testing procedures, **i.e., scientific methodologies**” to “testing **methods and procedures**” in the last sentence of the fourth paragraph.

Chapter 2, Theories are refinements of everyday thinking., fifth paragraph

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“Consider how we would have used this decision-oriented **scientific** methodology to refine early modern theories about **our** solar system. **Although** Copernicus’s theory of planets traveling around the sun in circular orbits was simpler and more elegant, it could not predict quite as well as the best Ptolemaic theory, which had the sun and other planets traveling around the earth in epicyclical orbits. We would have rejected Copernicus’s theory as a theory that predicts. However, we would not have rejected it as a means of explaining the solar system **because it was simpler, more elegant, and less thoroughly developed than Ptolemaic competitors.**”

to:

“Consider how we would have used this decision-oriented **strategy** (**metamethodology**) to refine early modern theories about **the** solar system. Copernicus’s **simpler, more elegant, and less thoroughly developed** theory of planets traveling around the sun in circular orbits could not predict quite as well as the best Ptolemaic theory, which had the sun and other planets traveling around the earth in epicyclical orbits. We would have rejected Copernicus’s theory as a theory that predicts. However, we would not have rejected it as a means of explaining the solar system.”

Chapter 2, *Theories are refinements of everyday thinking.*, seventh paragraph

The first sentence,

“Copernicus’s **heliocentric approach** proved its worth by helping Kepler formulate his theory of planets traveling around the sun in elliptical orbits.”

was merged with the sixth paragraph and changed to:

“Copernicus’s **theory eventually** proved its worth **as a theory that explains** by helping Kepler formulate his theory of planets traveling around the sun in elliptical orbits.”

The balance of the paragraph was merged with the eighth paragraph.

Chapter 2, *Theories are refinements of everyday thinking.*, ninth paragraph

“**We also would have used it to cull lesser theories in both categories.** Kepler’s theory helped Newton formulate his theories of gravity and mechanics. Given the greater depth and breadth of **Newton’s** theories, we would have accepted them as the leading theories that predict and explain. However, we would not have enshrined **Newton’s theories** as the sacred truth as Alexander Pope did in his intended epitaph for Newton:”

was merged with the eighth paragraph and changed to:

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“Kepler’s theory **eventually proved its worth as a theory that explains by helping** Newton formulate his theories of gravity and mechanics. Given the greater depth and breadth of **these** theories, we would have accepted them as the leading theories that predict and **the leading theories that** explain. However, we would not have enshrined **them** as the sacred truth as Alexander Pope did in his intended epitaph for Newton:”

Chapter 2, Refining Ultimate Ends, seventh to last paragraph

Reversed the unethical and misleading arguments. Adjusted wording of first sentences in new seventh, eighth, and last paragraphs to reflect these changes.

Changed the last two sentences of the seventh paragraph from:

“When considering what they need to live a good life, the wise focus on their bodies, minds, *and* spirits, not on their bodies, on their minds, *or* on their spirits. *We ought to eliminate any theory that attributes human motivation to a single level of abstraction.*”

to:

“Until we understand the complex relationships between our bodies and what we commonly refer to as our minds and our spirits, focusing on one level of abstraction will tend to blind us to needs that emerge on other levels of abstraction. *We ought to eliminate any theory that attributes human motivation to a single level of abstraction.* When considering what they need to live a good life, the wise focus not on their bodies, on their minds, *or* on their spirits, but rather on their bodies, minds, *and* spirits.”

Deleted the new tenth paragraph:

“Schweitzer’s normative end of reverence for life requires a recursive agreement between generations similar in form and spirit to the Confucian canon that we ought to pay the debts that we owe our ancestors to our descendants. Hence, whenever we are tempted to use ‘social justice’ we ought to substitute ‘tribal justice’ in order to remind ourselves and others that we refer to an inherently incomplete concept of justice.”

Chapter 2, new footnote 5, third sentence

“To reject useful theories simply because they conflict with a key assumption of the reductionist research program is **foolish. Further, to reject any theory because it conflicts with the reductionist research program is** unscientific.”

was changed to:

“To reject useful theories simply because they conflict with a key assumption of the reductionist research program is unscientific.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Chapter 2, Practical Wisdom and Moral Science, third paragraph

“Scientists have long struggled with how best to study evolving systems, **particularly those that involve humans using intellectual tools to formulate alternatives**. The great difficulty in studying these **human** systems is that there is a complex (reflexive / recursive) relationship between **normative** models and reality: We base our normative models on reality. Our actions change reality.”

was changed to:

“Scientists have long struggled with how best to study **our** evolving **cultures**. The great difficulty in studying these systems is that there is a complex (reflexive^o / recursive) relationship between **our** normative models (**the models of reality that we use to guide our actions**) and reality: We base our normative models on reality. Our actions change reality.”

“**Soros, George, *The Alchemy of Finance*, (New York: Simon & Schuster, 1988).**”

Chapter 2, Practical Wisdom and Moral Science, fourth paragraph, first sentence

Changed “relationship” to “**complex** relationship.”

Chapter 2, Practical Wisdom and Moral Science, fourth paragraph, last sentence

“**When we apply these** models **repeatedly** without considering how our **recent** actions **have changed** reality, **they** tend to lead us ever further away from ideal paths toward living good lives.”

was changed to:

“**Repeatedly using** models **to guide our actions** without considering how our actions change reality **tends** to lead us ever further away from ideal paths toward living good lives. **Model quality tends to vary directly with the first tendency and inversely with the second. This explains why speculative bubbles based on a single model, e.g., tulips are a good investment, are relatively rare. This is not to say that speculative bubbles based on common assumptions, e.g., there will always be greater fools around to buy overpriced investments, are rare.**”

Chapter 2, new tenth footnote, second paragraph

“Model quality tends to vary directly with the first tendency and inversely with the second. This explains why speculative bubbles based on a single model are relatively rare. This is not to say that speculative bubbles based on common assumptions are rare. These include the assumptions that there will always be greater fools around to buy overpriced investments and that investment markets will clear.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

was deleted.

Chapter 2, Practical Wisdom and Moral Science, fifth paragraph

“Fifty years ago Milton Friedman proposed a brilliant, but partial solution to **the** evolution problem. His solution was to limit economic science to **the task of evaluating alternatives.**” This **solution** requires that economists, as scientists, relinquish the power that comes from helping decision-makers formulate alternatives. **It also requires that they limit themselves to scientific theories that predict.**”

was changed to:

“Fifty years ago Milton Friedman proposed a brilliant, but partial solution to **our cultural** evolution problem. His solution was to limit economic science to **theories that predict.**” This requires that economists, as scientists, relinquish the power that comes from helping decision-makers formulate alternatives.”

Chapter 2, Practical Wisdom and Moral Science, sixth and seventh paragraphs

Shifted first sentence of sixth paragraph to end of fifth and changed “**heliocentric approach** proved its worth” to “**theory** proved its worth **as a theory that explains.**”

Merged remainder of fifth paragraph with sixth paragraph.

Chapter 3, Vicious and Virtuous Circles, title

Deleted “Vicious and.”

Chapter 3, Virtuous Circles, first paragraph

“Pleasure can overcome pain-in-being as well as pain-in-acting. This is a blessing in that it lets us mask our currently felt needs with activity when we cannot satisfy them. It is a curse in that it makes identifying our currently felt needs more difficult when we are active. It also can tempt us to mask our needs rather than seeking to satisfy them. Habitually masking our needs with pleasurable activity may lead to the vicious circle of compulsive behavior.”

was deleted.

Chapter 3, Virtuous Circles, end

Inserted the subsection, “Harmful Pleasure and Joy:”

“Pleasure and joy are harmful to us when they lead us away from following the virtuous circle of pleasure and joy. They mislead us (1) by masking the pain-in-acting

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

of foolish activities and (2) by masking the pain-in-being of an unsatisfied need that we are able to satisfy wisely.”

Chapter 4, Conclusion, first paragraph, first sentence

Added the footnote:

“⁴ Schumpeter, Joseph, *Capitalism, Socialism, and Democracy*, (New York: Harper & Row, 1942).”

Afterword, eleventh paragraph, fourth and fifth sentences

“The danger of ignoring this need is the flourishing of **deeply flawed** means of satisfying it. **These include such secular religions** as Marxist-Leninism, Nazism, Fascism, Maoism, and Baathism.”

were changed to:

“The danger of ignoring this **potentially overwhelming** need is the flourishing of such deeply flawed means of satisfying it as Marxist-Leninism, Nazism, Fascism, Maoism, and Baathism.”

Afterword, twelfth paragraph

“True believers in scientific analysis will perceive as utter nonsense my claim of a need to link or relink with something greater than ourselves. They believe that the only way to understand our minds, to say nothing of our spirits, is to understand our brain chemistry.”

was deleted.

Appendix B, Conclusion, end

Added the following sentences:

“This normative end is universal in that it applies to all intelligent life. Whenever we are tempted to use ‘social justice’ we ought to substitute ‘tribal justice’ in order to remind ourselves and others that we refer to a concept of justice that typically falls short of the universal normative end of reverence for life.”

Changes in Version 2004.09.14

Chapter 2, *Theories are refinements of everyday thinking.*, fifth paragraph, first sentence

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Changed “decision-oriented strategy (metamethodology)” to “decision-oriented metamethodology (strategy).”

Chapter 2, Refining Ultimate Ends, fourth paragraph, last sentence

“Theories that look to our internal programming to explain what motivates us, **which biologists call *teleonomic theories***, satisfy both of these conditions.”

was changed to:

“Theories that look to our internal programming to explain what motivates us satisfy both of these conditions.”

Chapter 2, Refining Ultimate Ends, fifth paragraph, first three sentences

“Modern biology supports using teleonomic theories as the foundation for **evolutionary explanations**. It tells us that **everything is evolving**. It also tells us that our beliefs and behaviors are evolving at a pace many orders of magnitude faster than the genetic level programming that underlies our higher level internal programming.”

were changed to:

“Modern biology supports using **these “teleonomic theories”** as the foundation for **explaining cultural evolution**. It tells us that our beliefs and behaviors are evolving at a pace many orders of magnitude faster than the genetic level programming that underlies our higher level internal programming.”

Chapter 3, Three Common Misbeliefs, third paragraph, last two sentences

“**Whether the contest involves breakfast cereals or theories of human behavior, competition insures the integrity of the complex web of human knowledge**. When **managerial** excellence includes cooperation, increasing competition **may** increase cooperation.”

were changed to:

“When excellence includes cooperation, increasing competition **tends to** increase cooperation.”

and merged with the fourth paragraph.

Chapter 3, Three Common Misbeliefs, new fourth paragraph, first sentence

“In business as in sports, competition **may** increase cooperation.”

was changed to:

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“In business as in sports, competition **tends to** increase cooperation.”

Appendix B, Practical Benefits of Magical Mysticism, first paragraph, last sentence

“In Islamic thought, we see this trend in the withering away of Sufism.”

was deleted.

Appendix B, Practical Benefits of Magical Mysticism, fourth paragraph, first two sentences

“**Schweitzer believed that combining magical and ethical mysticism is a logical impossibility in that the former requires us to deny the world and life while the latter requires us to embrace them. He failed to recognize that we can combine the best of magical and ethical mysticism by setting our objectives according to ethical mysticism and then acting according to magical mysticism.**”

were changed to:

“**We can combine the best of magical and ethical mysticism by setting our objectives according to ethical mysticism and then acting according to magical mysticism.**”

Appendix B, Practical Benefits of Magical Mysticism, fifth paragraph, first sentence

Changed “mystical oneness” to “mystical oneness **by means of detachment.**”

Appendix B, ninth footnote

“The flood of discordant images and metaphors that sometimes accompanies an epiphany suggests movement through intermediate states beneath normal consciousness.”

was changed to:

“When the source of the sudden intuitive realization is worldly, whether our brains are more like computers or intelligent receivers does not matter.”

and moved from the sixth sentence of the sixth paragraph to the third sentence of the fifth paragraph.

Changes in Version 2004.09.22

Chapter 2, Refining Ultimate Ends, seventh paragraph, sixth sentence

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“We ought to eliminate any theory that attributes human motivation to a single level of abstraction.”

was changed to:

“Hence, we ought to eliminate any theory that attributes human motivation to a single level of abstraction. **We ought to eliminate prescriptive theories based solely on sociobiology, which focus on our bodies; prescriptive theories based solely on postmodernism, which focus on our minds; and prescriptive theories based solely on our need to relink with the infinite Being, which focus solely on our spirits.”**

Chapter 2, Refining Ultimate Ends, ninth paragraph, end

Added the footnote:

“⁶ From this perspective, whenever we are tempted to use ‘social justice’ we ought to substitute ‘tribal justice’ in order to remind ourselves and others that we refer to a concept of justice that typically falls short of the universal normative end of reverence for life.”

Chapter 5, Decentralization, first paragraph, first sentence

Changed “**jazz** harmony” to “**improvisational** harmony.”

Chapter 5, Decentralization, last paragraph, last sentence

“The just seek to postpone turbulence only when turbulence threatens the political stability of the system.”

was deleted.

Chapter 5, Free Association, first paragraph

Removed italics from “tendency” and “trend.”

Chapter 5, Free Association, last paragraph, first sentence

Changed “ruled” to “guided.”

Chapter 5, International Cooperation, last paragraph, first sentence

Changed “**federal** world government” to “world government.”

Chapter 5, International Cooperation, last paragraph, third sentence

Changed “an **expensive** substitute” to “a substitute.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Appendix B, Introduction, last two paragraphs

Removed italics from opening phrases of first sentences.

Appendix B, Ultimate Normative Ends of Life, second to last paragraph, block quote

“True ethics are world-wide. All that is ethical goes back to a single principle of morality, namely the maintenance of life at its highest level, and the furtherance of life. The maintenance of one’s own life at the highest level by becoming more and more perfect in spirit, and the maintenance at the highest level of other life by sympathetic, helpful self-devotion to it - this is ethics.”

was deleted.

Appendix B, Conclusion, first paragraph

“Materialist and dualists can share a common purpose, which is progress toward a good life for all. This normative end is universal in that it applies to all intelligent life. Whenever we are tempted to use ‘social justice’ we ought to substitute ‘tribal justice’ in order to remind ourselves and others that we refer to a concept of justice that typically falls short of the universal normative end of reverence for life.”

was changed to:

“Materialist and dualists can share the common purpose of progress toward a good life for all. Accepting it as an organizing principle turns postmodern cacophony into improvisational jazz.”

Changes in Version 2004.09.28

Preface, first paragraph, second sentence

Changed “his course” to “his course in ethical decision-making.”

Chapter 5, Just Taxation, sixth paragraph, last sentence

“Government is an imperfect substitute for perfect practical wisdom.”

was changed to:

“Government is a substitute for practical wisdom.”

Chapter 5, International Cooperation, second paragraph, second to last sentence

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“This clause guaranteed that the slave states could prevent the federal government from **interfering with the “peculiar institution” of slavery, which mocked** the Preamble.”

was changed to:

“This clause guaranteed that the slave states could prevent the federal government from **progressing toward the just ends proclaimed in** the Preamble.”

Changes in Version 2004.09.30

Acknowledgments, sixth paragraph

Changed “for criticizing countless drafts” to “countless critiques” in the first sentence.

Changed “contributed to” to “critiqued” in the second sentence.

Acknowledgments, end

Added the paragraph:

“Unlike true believers in scientific analysis, I believe that interactions of the bits of complex adaptive systems can create phenomena worthy of investigation at higher levels of abstraction. Further, what happens at higher levels of abstraction can affect what happens at lower levels. Hence, we ought to study complex adaptive systems on all levels of abstraction. Accordingly, I have developed a holistic strategy for learning more about what we ought to seek and how best to do so. This strategy complements microeconomic analysis in helping us to decide wisely.”

Chapter 1, Marginalist Economics' Blind Spot, sixth paragraph, first sentence

“Suppose our factory needs two hundred units of a particular part **every working day for at least a year**. At one extreme, we could choose to produce fifty thousand (200 x 5 x 50) once.”

was changed to:

“Suppose our factory needs two hundred units of a particular part **five days a week for fifty weeks**. At one extreme, we could choose to produce fifty thousand once.”

Chapter 1, Marginalist Economics' Blind Spot, sixth paragraph, last two sentences

“The EOQ model yields the quantity at which the marginal cost and marginal benefit of **holding inventory with respect to** setting up just equal one another. This quantity

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

maximizes the net benefit of **holding inventory** *for our current knowledge of how to set up tools.*”

was changed to:

“The EOQ model yields the quantity at which the marginal cost and marginal benefit of setting up just equal one another. This quantity maximizes the net benefit of **setting up** *for our current knowledge of how to set up tools.*”

Chapter 1, Marginalist Economics' Blind Spot, eighth paragraph, last sentence

“Based on empirical studies and Bayesian models of learning, each time that we double our experience we can reasonably expect setup costs to drop by some constant percentage, e.g., twenty percent.”

was deleted. The eighth and ninth paragraphs were merged. All italics were eliminated.

Chapter 1, Marginalist Excellence, first paragraph, first sentence

Removed italics from “*subordinate.*”

Chapter 1, Marginalist Excellence, second paragraph, first sentence

Changed “, **they are** effective” to “**but also** effective.”

Chapter 1, The Recursionist Strategy, third paragraph, second two sentences

“Our mistakes waste **time and other** resources. However, *given a learning attitude*, we learn from our mistakes. Given a learning attitude, waste is a regrettable by-product of learning through experience.”

was changed to:

“Our imperfect decision-making wastes resources. However, **given a learning attitude**, we learn from our mistakes.”

Chapter 1, Conclusion, first sentence

“This chapter introduced a strategy **that provides us with a conceptual framework for thinking about how best to** progress toward our ultimate ends.”

was changed to:

“This chapter introduced a strategy **for progressing** toward our ultimate ends.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Chapter 2, *Theories are subjective.*

“Concepts are tools that focus our attention on certain characteristics of objects by ignoring other characteristics. We can conceive of the world in many ways. What we conceive depends on the concepts that we use to describe what we perceive. Because what we conceive depends on the concepts that we use, all conceptual models, hence all theories, are subjective.”

was changed to:

“All theories are conceptual models. We can conceive of the world in many ways. What we conceive depends on the concepts that we use to describe what we perceive. Thus, all theories are subjective.”

Chapter 2, *Theories produce predictions and explanations.*, second paragraph, first sentence

“Some theories explain relatively better than they predict and others predict relatively better than they explain.”

was changed to:

“Other theories explain relatively better than they predict.”

Chapter 2, *Theories produce predictions and explanations.*, third paragraph

Moved paragraph ahead of the second paragraph. Changed “Other” to “Some” in the first sentence.

Chapter 2, *Theories produce predictions and explanations.*, fourth paragraph

Changed “formulate alternatives” to “formulate better alternatives” in the third sentence.

Chapter 2, *Theories produce predictions and explanations.*, last paragraph

“The distinction between predictions and explanations is especially important in economics. We predict our behavior based on the knowledge that we currently possess. If we explain our behavior based on the knowledge we currently possess, we will tend to blind ourselves to the possibility of learning. To avoid this, we need to explain our behavior based on how we would act if we had complete knowledge of what we ought to seek. We need to explain based not on how we expect we will act, but on how the wise would act.”

was changed to:

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“The distinction between predictions and explanations is especially important in economics. We predict **the** behavior **of others** based on the knowledge that they currently possess. If we explain our behavior based on the knowledge we currently possess, we will tend to blind ourselves to the possibility of learning. To avoid this, we need to explain our behavior based on how we would act if we had complete knowledge of what we ought to seek. **In other words**, we need to explain based on **how the wise would act.**”

Chapter 2, *Theories are refinements of everyday thinking.*, fifth paragraph, second and third sentences

“This conception of science falls short of Einstein’s ideal of refined everyday thinking in that it **forces us to choose between science and philosophy in helping us to find the best** problem to solve. We can remedy this by **rejecting philosophical theories that fail to meet** empirical standards for finding problems to solve.”

was changed to:

“This conception of science falls short of Einstein’s ideal of refined everyday thinking in that it **doesn’t test philosophical theories that aim at helping us find problems to solve.** We can remedy this by testing **these** theories **against** empirical standards for finding problems to solve.”

Chapter 2, *Theories are refinements of everyday thinking.*, sixth paragraph, first sentence

Deleted “ $(C \cap D)$.”

Chapter 2, *Theories are refinements of everyday thinking.*, seventh paragraph

Changed “metamethodology (**strategy**)” to “metamethodology” in the first sentence.

Changed “**not** have **rejected**” to “have **accepted**” in the fourth sentence.

Chapter 2, Practical Wisdom and Moral Science

Changed title to “Moral Science.”

Changed “**our** cultural evolution problem” to “**the** cultural evolution problem” in the first sentence of the fifth paragraph.

Added the following paragraph to the end:

“Many positivist scientists and philosophers of science will dismiss the recursionist strategy for not being positive, for not describing the world as it is. They ought to consider the nature of scientific research programs. Scientific research programs are

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

positive in their ends, normative in their means, and potentially religious in their effect on researchers. The recursionist strategy is a scientific research program of, by, and for all intelligent life.”

Chapter 3, Harmful Pleasure and Joy, last sentence

“They mislead us (1) by masking the pain-in-acting of foolish activities and (2) by masking the pain-in-being of an **unsatisfied** need that we are able to satisfy wisely.”

was changed to:

“They mislead us by masking the pain of foolish activities. **They also mislead us** by masking the pain of unsatisfied needs that we are able to satisfy wisely. **In short, they allow us to construct fools’ paradises.**”

Chapter 3, Three Common Misperceptions, first paragraph, fifth sentence

“For example, **most** American manufacturers **originally** perceived the Toyota Production System as a collection of techniques for minimizing WIP inventory.”

was changed to:

“For example, **failing to see the benefits of increasing the efficiency of trade caused many** American manufacturers **to** perceive the Toyota Production System as a collection of techniques for minimizing WIP inventory.”

Chapter 5, Moral Vision

Incorporated Moral Vision into Decentralization section.

Chapter 5, Free Association, third paragraph

Changed “practical question **for just policy makers**” to “practical question” in the last paragraph.

Merged with the fourth paragraph.

Chapter 5, International Cooperation, second paragraph, fourth sentence

“In practice, special interest groups will cynically accept **the most lucid of missions** while effectively denying the means of accomplishing **it**.”

was changed to:

“In practice, special interest groups will cynically accept **just ends** while effectively denying the means of accomplishing **them**.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Afterword, first paragraph, fourth sentence

Changed “the topic of interest” to “ the topic of **greatest** interest.”

Afterword, ninth paragraph, first sentence

“For those on the right, the major problem is that this dynamic process **results in a culture based on** ever more inclusive (“feminine”) ends.”

was changed to:

“For those on the right, the major problem is that this dynamic process **requires** ever more inclusive (“feminine”) **subordinate** ends.”

Afterword, ninth paragraph, last sentence

“(in moving toward the ultimate normative end of reverence for life)”

was deleted.

Afterword, tenth paragraph, third sentence

Changed ““progressive” cultural ends” to “**ever more** “progressive” cultural ends.”

Afterword, last three paragraphs

“My religious position (Appendix B) is equally difficult to describe to those who do not share my information age perspective. I reject the traditional distinction between secular and religious humanism. Secular humanists tend to ignore the very real human need to link or relink to something greater than ourselves. The danger of ignoring this potentially overwhelming need is the flourishing of such deeply flawed means of satisfying it as Marxist-Leninism, Nazism, Fascism, Maoism, and Baathism. Instead, I distinguish between materialist religious humanism and dualist religious humanism. Rather than focusing our attention on the issue of whether we have a need to link or relink with something greater than ourselves, this distinction focuses our attention on how best to do so.”

“Like many others, I believe that interactions of the bits of complex adaptive systems can create phenomena worthy of investigation at higher levels of abstraction. Further, what happens at higher levels of abstraction can affect what happens at lower levels. Hence, we ought to study these systems on all levels. Accordingly, I have developed a holistic strategy for learning more about what we ought to seek and how best to do so. This strategy complements microeconomic analysis in helping us to decide wisely.”

“Many positivist scientists and philosophers of science will dismiss the recursionist strategy for not being positive, for not describing the world as it is. They ought to

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

consider the nature of scientific research programs. Scientific research programs are positive in their ends; normative in their means; and potentially religious in their effect on researchers. The recursionist strategy is a scientific research program of, by, and for all intelligent life.”

were deleted.

Appendix A, Introduction, second paragraph, first sentence

Removed italics from “and consumption.”

Appendix B, Ultimate Normative Ends of Life, fourth paragraph, last sentence

Changed “**illusive spiritual** needs” to “**mysterious** needs.”

Appendix B, Benefits of Magical Mysticism, footnote 9

“When the source of the sudden intuitive realization is worldly, whether our brains are more like computers or intelligent receivers does not matter.”

was deleted.

Appendix B, Conclusion, first paragraph

Inserted the paragraph:

“Secular humanists tend to ignore our very real need to link or relink to something greater than ourselves. The danger of ignoring this potentially overwhelming need is the flourishing of such deeply flawed means of satisfying it as Marxist-Leninism, Nazism, Fascism, Maoism, and Baathism. Rather than distinguishing between secular and religious humanism, we ought to distinguish between materialist and dualist religious humanism.”

Changes in Version 2004.10.15

Preface, fifth paragraph

“Mathematicians face a similar (open-ended) problem when they seek to evaluate the transcendental number pi. Rather than seeking ever better rational approximations of pi:

3,
22/7,
355/113,
...

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“mathematicians seek ever better strategies for calculating pi:

$$\begin{aligned} \pi &= 4(1 - 1/3 + 1/5 - 1/7 + 1/9 - 1/11 + \dots), \\ \pi &= 2 \cdot \sqrt{3}(1 - 1/3 \cdot 3 + 1/5 \cdot 3^2 - 1/7 \cdot 3^3 + 1/9 \cdot 3^4 - 1/11 \cdot 3^5 + \dots), \\ &\dots \end{aligned}$$

“where better strategies are those that converge more quickly.”

was deleted.

Preface, new sixth paragraph, first sentences

“This radical solution will be resisted by scholars who believe that it takes a theory to beat a theory. They ought to consider the **following**:

An intellectual tool for helping us formulate alternatives ought to address all uncertainty. No theory can address the uncertainty of all of its own fundamental propositions. **However**, a strategy can address all uncertainty.”

were changed to:

“This radical solution will be resisted by scholars who believe that it takes a theory to beat a theory. They ought to consider **the nature of decision-making. The foremost task of decision-making is defining the global / universal problem we face, the problem that defines our ultimate ends.** The intellectual tool **that we use to define this problem** ought to address all uncertainty. No theory can address the uncertainty of all of its own fundamental propositions. **Only** a strategy **for learning** can address all uncertainty.”

Preface, new seventh paragraph

Changed “They” to “**These scholars**” in the first sentence.

Changed “**The strategy**” to “**Toyota’s strategy for learning**” in the last sentence.

Changed “theories” to “theories **for allocating**” in the last sentence.

Preface, new eighth paragraph, second sentence

Changed “**the Toyota production system**” to “**Toyota’s strategy for learning.**”

Preface, end

Moved the last two paragraphs of the Acknowledgments to the end of the Preface.

Preface, new last paragraph

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“Unlike true believers in scientific analysis, I believe that interactions of the bits of complex adaptive systems can create phenomena **worthy of investigation** at higher levels of abstraction. Further, what happens at higher levels of abstraction can affect what happens at lower levels. Hence, we ought to study **complex adaptive** systems on all levels of abstraction. Accordingly, I have developed a holistic strategy for learning more about what we ought to seek and how best to do so. This strategy complements microeconomic analysis in helping us to decide wisely.”

was changed to:

“Unlike true believers in scientific analysis, I believe that **the** interactions of the bits of complex adaptive systems (**quantum or subquantum particles**) can create phenomena **useful to understand** at higher levels of abstraction (**e.g., organisms, economies and ecosystems**). Further, what happens at higher levels of abstraction can affect what happens at lower levels. Hence, we ought to study all **useful** levels of abstraction. Accordingly, I have developed a holistic strategy for learning **ever** more about what we ought to seek and how best to do so. This strategy complements microeconomic analysis in helping us to decide wisely.”

Chapter 1, Mainstream Economics' Blind Spot, eighth paragraph

“In contrast, managers practicing rapid tool-setting instruct their workers to look for better ways of setting up **and** ways to improve the environment for learning to setup more quickly. We can model rapid tool-setting by combining an EOQ model with an expected learning curve, a function that relates the expected cost of setting up to the cumulative experience of setting up. This rapid tool-setting model is very disturbing for those who like neat solutions. It tells us that we can choose to learn more quickly by setting up more often. **The difficulty is that we cannot determine the value of learning more quickly without knowing** the value of what we learn. The inexhaustibility of knowledge, the fact that using a pattern does not wear it out, makes determining the value of this knowledge problematic. Although we can measure the value of a scarce resource by measuring the value of resources it replaces, we cannot do the same with useful knowledge, except in the special case where we know exactly when and how the knowledge will be used in the future. Here, we do not know exactly when and how: (1) we will use new knowledge of how to set up more quickly, (2) we will use new knowledge of how to learn more quickly, and (3) fellow workers will use both types of new knowledge. **The possibility of learning makes what otherwise would be a simple closed-ended problem into a complex open-ended one.**”

was appended to the seventh paragraph and changed to:

“In contrast, managers practicing rapid tool-setting instruct their workers to look for better ways of setting up. **They also look** for ways to improve the environment for learning to setup more quickly.

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“We can model rapid tool-setting by combining an EOQ model with an expected learning curve, a function that relates the expected cost of setting up to the cumulative experience of setting up. This rapid tool-setting model is very disturbing for those who like neat solutions. It tells us that we can choose to learn more quickly by setting up more often. **To determine the how often we should set up, we need to determine** the value of what we expect to learn. The inexhaustibility of knowledge, the fact that using a pattern does not wear it out, makes determining the value of what we expect to learn problematic. We cannot measure the value of useful knowledge by measuring the value of resources it replaces, except in the very special case where we know exactly when and how the knowledge will be used in the future. Here, we do not know exactly when and how: (1) we will use new knowledge of how to set up more quickly, (2) we will use new knowledge of how to learn more quickly, and (3) fellow workers will use both types of new knowledge. *The possibility of learning makes what otherwise would be a simple closed-ended problem into a complex open-ended one.*”

Chapter 1, The Recursionist Strategy, title

Changed “The **Recursionist** Strategy” to “The Strategy.”

Chapter 1, The Strategy, first two paragraphs

“Changing our concept of excellence in means from marginalist “efficiency” to managerial “efficiency and effectiveness” requires making profound changes to how we think about **economics**:

- **The scope of economics must change.** The inexpensive replication of many types of useful knowledge makes it impossible to separate what happens in our society today from what will happen across the world next week or fifty years from now: discoveries travel around the globe and provide benefits until they are superseded or forgotten. Only the ability and willingness to use knowledge constrains its use. The scope of **economics** must broaden from living members of a given society to current and future members of the community of beings capable of using the knowledge that its members create.
- **The focus of economics must change.** The inexhaustibility of knowledge makes it impossible to value knowledge by measuring the value of the non-knowledge resources it replaces. The best we can do is to measure its value subjectively using decision science techniques. The focus of **economics** must change from studying *states of the world* to the *process of decision-making*.
- **The ultimate end of economics must change.** This is to say that the meaning of ‘wealth’ must change if it is to remain the term that we use to describe what we seek. **In theory, all of our decisions concern our ultimate ends.** To think clearly about our ultimate ends, we need a concept of wealth that concerns what we *need* in order to achieve our ultimate ends. This is in sharp contrast to our current concept of wealth, which concerns what we currently *want*.

“In short, the universal (**global**) **economic** problem becomes one of how we intelligent beings choose to progress toward our ultimate ends.

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“We solve open-ended problems by repeatedly applying progressive processes, processes that move us ever closer to the solution. The obvious choice for a progressive process to solve this open-ended problem is decision-making, understood as the process that begins with finding a problem to solve and ends with reviewing the results of the chosen alternative.”

were changed to:

“Changing our concept of excellence in means from marginalist “efficiency” to managerial “efficiency and effectiveness” requires making profound changes to how we think about the universal problem **we face, the problem that defines our ultimate ends:**

- **The scope must change.** The inexpensive replication of many types of useful knowledge makes it impossible to separate what happens in our society today from what will happen across the world next week or fifty years from now: discoveries travel around the globe and provide benefits until they are superseded or forgotten. Only the ability and willingness to use knowledge constrains its use. The scope of **the universal problem** must broaden from living members of a given society to current and future members of the community of beings capable of using the knowledge that its members create.
- **The focus must change.** The inexhaustibility of knowledge, **the fact that using a pattern does not deplete it**, makes it impossible to value knowledge by measuring the value of the non-knowledge resources it replaces. The best we can do is to measure its value subjectively using decision science techniques. The focus of **the universal problem** must change from studying *states of the world* to the *process of decision-making*.
- **The ultimate end must change.** This is to say that the meaning of ‘wealth’ must change if it is to remain the term that we use to describe what we seek. To think clearly about our ultimate ends **and how best to achieve them**, we need a concept of wealth that concerns what we *need* in order to achieve our ultimate ends. This is in sharp contrast to our current concept of wealth, which concerns what we currently *want*.

“In short, the universal problem **we face** becomes one of how we intelligent beings choose to progress toward our ultimate ends.

“The problem we face in progressing toward our ultimate ends is an open-ended one. Mathematicians face a similar problem when they seek to evaluate the transcendental number pi. Rather than seeking ever better rational approximations of pi:

3,
22/7,
355/113,
....

“they seek ever better means of calculating pi:

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

$$\begin{aligned} \pi &= 4(1 - 1/3 + 1/5 - 1/7 + 1/9 - 1/11 + \dots), \\ \pi &= 2 \cdot \sqrt{3}(1 - 1/3 \cdot 3 + 1/5 \cdot 3^2 - 1/7 \cdot 3^3 + 1/9 \cdot 3^4 - 1/11 \cdot 3^5 + \dots), \\ &\dots \end{aligned}$$

“where better means are those that converge more quickly.

“Mathematicians progress toward π by applying a process (formula) recursively. Similarly, we progress toward our ultimate ends by applying a process (decision-making) recursively.”

Chapter 1, The Strategy, third paragraph, beginning

Added the sentence:

“Decision-making begins with finding a problem to solve and ends with learning from the experience of implementing the chosen solution.”

Chapter 1, The Strategy, second to last paragraph, last sentence

Changed “creating **and applying** knowledge” to “creating knowledge.”

Chapter 1, The Strategy, last paragraph

“**The recursionist strategy aims at improving** decision-making by improving the factors of **good** decision-making. Three of these strategic assets are **worth mentioning here**. The first is practical wisdom — our willingness and ability to act wisely. Practical wisdom includes a strategic vision of our ultimate ends and the best means of achieving them. The second is trust⁵ **and** the third is the liberty to implement the alternative that makes the most productive use of our resources without unjustly interfering with others’ liberty to do the same. **Practical wisdom, trust, and liberty are critical factors in information age economies.**”

was changed to:

“**We can improve the quality of** decision-making by improving the factors of **wise** decision-making. Three of these strategic assets are **especially important in information age economies**. The first is practical wisdom — our willingness and ability to act wisely. Practical wisdom includes a strategic vision of our ultimate ends and the best means of achieving them. The second is trust, **which includes the rule of law**. The third is the liberty to implement the alternative that makes the most productive use of our resources without unjustly interfering with others’ liberty to do the same. **The strategy put forth in this work aims at improving decision-making by improving these and other factors of wise decision-making.**”

Chapter 1, Overview, first sentence

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Changed “a strategy” to “a **recursionist** strategy.”

Chapter 2, Refining Ultimate Ends, first paragraph, second sentence

“Formal decision-making consists of (1) finding a problem to solve, (2) **identifying** alternative **solutions**, (3) **selecting** an alternative, (4) implementing the **selected** alternative, and (5) **reviewing the first four steps**.”

was changed to:

“Formal decision-making consists of (1) finding a problem to solve, (2) formulating alternatives, (3) **choosing** an alternative, (4) implementing the **chosen** alternative, and (5) **learning from the experience**.”

Chapter 2, Refining Ultimate Ends, ninth paragraph, second sentence

Deleted “to govern us.”

Chapter 2, Refining Ultimate Ends, tenth paragraph, last sentence

Changed “**agree on eliminating**” to “eliminate.”

Chapter 2, Moral Science, third paragraph, second sentence

Changed “**our normative models** (the models of reality that we use to guide our actions)” to “the models of reality that we use to guide our actions.”

Chapter 3, *Two Means of Pursuing Happiness*, third paragraph

“Spinoza believed that true freedom and happiness **come from** understanding the causes of our emotions. **If we can learn to understand the source of our emotions, we can learn to control them. Further, he believed that all emotions concern movements toward or away from perfection.** In terms of our needs model, **we achieve happiness by satisfying our needs, and** we develop moral virtue by learning to understand our needs and the best means of satisfying them.”

was changed to:

“Spinoza believed that **all emotions concern movements toward or away from perfection. We achieve** true freedom and happiness **by addressing** the causes of our emotions **rationally**. In terms of our needs model, we develop moral virtue by learning to understand our needs and the best means of satisfying them. **We achieve true freedom and happiness by satisfying our needs rationally.**”

Chapter 3, *Two Means of Pursuing Happiness*, last paragraph, first sentence

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Changed “but” to “but rather.”

Chapter 3, *Alternatives to Pursuing Happiness*, first paragraph

“The two major alternatives to pursuing happiness are pursuing pleasurable activities and pursuing nothing. Like the wise, those who pursue pleasurable activities (hedonists) understand that satisfying their needs increases their ability to pursue pleasurable activities. Unlike the wise, they choose to mask pain-in-being with pleasure, which breaks the virtuous circle of pleasure and pain. Because they often choose to mask pain-in-being with pleasure, they are vulnerable to the vicious circle of compulsive behavior, which is habitually responding to a need with an activity that fails to satisfy it.”

was changed to:

“The wise pursue happiness by pursuing the virtuous circle of pleasure and joy. The two major alternatives to pursuing happiness are pursuing pleasure (*per se*) and pursuing nothing. Those who pursue pleasure too often choose to mask pain-in-being with pleasure, which breaks the virtuous circle of pleasure and joy. Their pursuit of pleasure makes them vulnerable to the vicious circle of mindlessly responding to a need with an activity that fails to satisfy it.”

Chapter 3, *Alternatives to Pursuing Happiness*, second paragraph

“Those who pursue nothing blindly follow their traditions or leaders. Because they seldom consider whether their actions are just or efficient, they tend to develop even less practical wisdom than hedonists do. Lacking practical wisdom, they have the most difficulty adapting to change and so are the most prone to fall into the cycle of poverty.”

was changed to:

“Those who pursue nothing either pursue oblivion or mindlessly follow their traditions or leaders. They seldom consider whether their actions are just or efficient. Lacking practical wisdom, they are the most likely to fall into the cycle of poverty.”

Chapter 3, *Alternatives to Pursuing Happiness*, third paragraph, first sentence

“This distinction between pursuing happiness, pursuing pleasurable activity, and following traditions or leaders is more than a relic of Western civilization.”

was changed to:

“The distinction between pursuing happiness, pursuing pleasure, and pursuing nothing is more than an artifact of Western civilization.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Chapter 3, *Alternatives to Pursuing Happiness*, third paragraph, last sentence

“In the Taoist tradition, yin corresponds to pursuing joy (pleasure-in-being); yang corresponds to pursuing pleasure (pleasure-in-acting); and the balance of yin and yang corresponds to pursuing happiness.”

was moved to a new paragraph and changed to:

“In the Taoist tradition, pursuing happiness is a matter of maintaining a dynamic balance of yin and yang. Those who pursue pleasure activities have too much yang. Those who pursue nothing have too much yin.”

Chapter 4, Conclusion, last paragraph

Changed “ought” to “owe it to ourselves.”

Chapter 4, throughout (three occurrences)

Changed “good decision-making” to “wise decision-making.”

Chapter 4, Conclusion, last paragraph (two occurrences)

Changed “ought” to “owe it to ourselves.”

Afterword, fourth paragraph, first six sentences

“In *A Conflict of Visions, Ideological Origins of Political Struggles*, Sowell describes the difference in terms of how each side views the size of problems relative to our human ability to solve them. Right-wingers see the world filled with relatively complex and amorphous problems, which are best solved through decentralized decision-making. We can see this distinction in manufacturing, where those who see inventory control in terms of the EOQ model favor MRP systems and those who see it in terms of the rapid tool-setting model favor the Toyota Production System. We can also see it in the response to a series of commuter airline crashes several years ago. Left-wingers asked why commuter airlines were not subject to the same regulations as major airlines. Right-wingers asked a bigger question, would the additional regulatory burden proposed by the left-wingers save lives?”

was moved to a new paragraph and changed to:

“In *A Conflict of Visions, Ideological Origins of Political Struggles*, Sowell describes the difference in terms of how each side views the size of problems relative to our human ability to solve them. Left-wingers see the world filled with relatively simple problems that are not being solved. In contrast, right-wingers see the world filled with relatively complex and amorphous problems, which are best solved through decentralized decision-making. We can see this difference in the differing responses to

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

a series of commuter airline crashes several years ago. Left-wingers asked why commuter airlines were not subject to the same regulations as major airlines. Right-wingers **recognized a more complex problem.**”

Afterword, fifth paragraph

“From this perspective, all current economic theories, including those of the Austrian school, are too simple in that they include the assumption that “consumer preferences” are either fixed or change in ways that are independent of economic policy. Relaxing this simplifying assumption strengthens the case for decentralization. However, the case for decentralization itself depends on the assumption that we seek to live wisely. We cannot separate our right to choose from our responsibility to live wisely.”

was deleted.

Afterword, new fifth paragraph, fourth sentence

Changed “relatively distant” to “relatively distant (**“cosmic”**).”

Afterword, new eighth paragraph, first sentence

“For those on the right, the major problem is that **this dynamic process requires ever more inclusive (“feminine”) subordinate ends.**”

was separated from the balance of the paragraph and changed to:

“ For those on the right, the major problem is that **the case for freedom depends on the assumption that we seek to live wisely. We cannot separate our right to choose from our responsibility to live wisely.**”

Afterword, ninth paragraph, fourth sentence

“A **more useful** explanation is that the United States owes its success not to any fixed cultural tradition but rather to its tradition of **political** freedom and **cultural** progress toward the normative end of reverence for life.”

was changed to:

“A **wiser** explanation is that the United States owes its success not to any fixed cultural tradition but rather to its tradition of freedom and progress toward the normative end of reverence for life.”

Afterword, last paragraph, second sentence

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“When talking to those on the right, I claim to be a “process conservative” in that I seek to preserve the **tradition of political freedom and cultural progress toward the normative end of reverence for life.**”

was changed to:

“When talking to those on the right, I claim to be a “process conservative” in that I seek to preserve the **dynamic process that made the United States what it is today.**”

Afterword, last paragraph, third sentence

Changed “**political** means” to “means.”

Changed “**cultural** ends” to “**subordinate** ends.”

Afterword, last paragraph, fifth sentence

Changed “their **vision**” to “their **plans.**”

Appendix C, last paragraph, last sentence

“Ultimately, the solution to their problem **is** the same, **which is the adoption of an economic strategy that doesn't depend on problematic measurements.**”

was changed to:

“Ultimately, the solution to their problem **will be** the same.”

Changes in Version 2004.10.18

Preface, first paragraph, first sentence

“*Wealth in the Information Age, The Economics of Practical Wisdom* is the book that I wish I had read in George Leland Bach’s normative economics course, *Business, Government, and the Changing Environment*, **a quarter century ago.**”

was changed to:

“*Wealth in the Information Age, The Economics of Practical Wisdom* is the book that I wish I had read **twenty-six years ago** in George Leland Bach’s normative economics course, *Business, Government, and the Changing Environment.*”

Preface, first paragraph, last sentence

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“It was only after we finished the last case that he cautiously recommended three rules that he used to test the morality of decision alternatives.”

was changed to:

“It was only after we finished the last case that he cautiously recommended three rules that he used to test the morality of decision alternatives: (1) the golden rule (*Do unto others as you would have them do unto you.*); (2) the television rule (*Act as if everything that you do will eventually become public knowledge.*); and (3) the anti-expediency rule (*Don't eat your seed corn.*)”

Preface, second through fifth paragraphs

“I was already familiar with Bach's three rules. I had learned the golden rule from my parents; the television rule from Wilfred McNeil, comptroller of the United States Department of Defense under its first six Secretaries; and the anti-expediency rule from Harry Carroll, professor of classical Western history, art, languages, and philosophy. I wanted more. I wanted an overarching theory of moral philosophy, a strategic theory that would tell me when the tactical theories I used to solve immediate problems were leading me astray.

“In retrospect, I wanted a unified theory of ethics, economics, and politics. I have had to settle for a strategy for refining what physicist Murray Gell-Mann calls “a crude look at the whole.””

“To be most effective, intellectual tools for helping us formulate alternatives must be based on what we would do if we had complete knowledge of what we ought (owe to ourselves) to seek. How can we know what we don't know?”

“A strategy is a plan for solving a problem that is too large or too complex for a specific solution. Rather than seeking ever better theories of what we ought to seek, we can seek ever better strategies for learning what we ought to seek. How can we know what we don't know? We can learn by doing.”

were changed to:

“I was already familiar with Bach's three decision rules. I had learned the first from my parents; the second from Wilfred McNeil, comptroller of the United States Department of Defense under its first six Secretaries; and the third from Harry Carroll, professor of classical Western history, art, languages, and philosophy. I wanted more than these simple rules. I wanted an overarching theory of moral philosophy, a strategic theory that would tell me when the tactical theories I used to solve immediate problems were leading me astray.

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“Over the last quarter century I’ve learned that I my desire for an overarching theory of moral philosophy was misguided. Rather than seeking ever better strategic theories, we ought to seek ever better strategies for learning.”

Preface, new fifth paragraph, first sentence

Changed “radical solution” to “radical approach to normative economics.”

Preface, new sixth paragraph

“At the dawn of the industrial age, Adam Smith’s example of a pin factory demonstrated the wisdom of pursuing the virtuous circle of the division of labor and the expansion of market size. Today, Toyota’s strategy for learning demonstrates the wisdom of pursuing the virtuous circle of **increasing excellence in production and trade and increasing excellence in consumption**. Good people produce good products. Good products, *including good intellectual tools*, produce good people. (See Appendix A.) Given this new reality, we owe it to ourselves to **know** more about what makes people good. We owe it to ourselves to learn more about what enlightened self-interest truly is.”

was changed to:

“At the dawn of the industrial age, Adam Smith’s example of a pin factory demonstrated the wisdom of pursuing the virtuous circle of the division of labor and the expansion of market size. Today, Toyota’s strategy for learning demonstrates the wisdom of pursuing the virtuous circle of good people and good products: Good people produce good products. Good products, *including good intellectual tools*, produce good people. Given this new reality, we owe it to ourselves to **know** more about what makes people good. We owe it to ourselves to learn more about what enlightened self-interest truly is.”

Preface, last two paragraphs

“Students of F. A. Hayek will recognize the homage I paid him in the dedication. Although I finished my first draft before reading any of his works, I owe more to this self-proclaimed member of the party of life than to any other economist. Hayek condemned scientism. The Oxford English Dictionary defines scientism as “a term applied (freq. in a derogatory manner) to a belief in the omnipotence of scientific knowledge and techniques; also to the view that the methods of study appropriate to physical science can replace those useful in other fields such as philosophy and, esp., human behaviour and the social sciences.” Members of the cult of scientism satisfy their human need for mystical oneness by pursuing a quixotic quest for objective truth, a God’s eye view of the Universe, solely by means of understanding isolated parts amenable to complete understanding. Scientism is true belief in scientific analysis.

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“Unlike true believers in scientific analysis, I believe that the interactions of the bits of complex adaptive systems (quantum or subquantum particles) can create phenomena useful to understand at higher levels of abstraction (e.g., organisms, economies and ecosystems). Further, what happens at higher levels of abstraction can affect what happens at lower levels. Hence, we ought to study all useful levels of abstraction. Accordingly, I have developed a holistic strategy for learning ever more about what we ought to seek and how best to do so. This strategy complements microeconomic analysis in helping us to decide wisely.”

were deleted.

Acknowledgments, last paragraph

Inserted the paragraph:

“The sixth is F. A. Hayek. Students of Hayek will recognize the homage I paid him in the dedication. Although I finished my first draft before reading any of his works, I owe more to this self-proclaimed member of the party of life than to any other economist.”

Chapter 1, The Strategy, first paragraph, first sentence

Changed “making profound changes **to** how we think” to “making profound changes **in** how we think.”

Chapter 2, Theories produce predictions and explanations., end

“In **other words**, we need to explain based on how the wise would act.”

was changed to:

“In **short**, we need to explain **our behavior** based on how the wise would act.”

Changes in Version 2004.10.25

Title Page

Changed “Scott Maynard Harris” to “S. M. Harris.”

Acknowledgments, first paragraph, second sentence

Changed “Fredrick Sontag” to “Frederick Sontag.”

Chapter 2, Theories produce predictions and explanations., last paragraph

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“The distinction between predictions and explanations is especially important in economics. We predict **the behavior of others** based on the knowledge that **they** currently possess. If we explain **our behavior** based on the knowledge we currently possess, we will tend to blind ourselves to the possibility of learning. To avoid this, **we** need to explain our behavior based on how we would act if we **had complete knowledge of** what we ought to **seek. In other words, we need to explain based on how the wise would act.**”

was changed to:

“The distinction between predictions and explanations is especially important in economics. We predict **what happens in economies** based on the knowledge that **we (economic agents)** currently possess. If we explain **what happens in economies** based on the knowledge we currently possess, we will tend to blind ourselves to the possibility of learning. To avoid this, we need to explain **what happens in economies** based how we would act if we had complete knowledge of what we ought to learn. In short, we need to explain based on how the wise would act.”

Chapter 2, The Strategy, first paragraph, first sentence

Changed “metamethodology” to “concept of scientific testing.”

Chapter 2, *Theories are refinements of everyday thinking.*, seventh paragraph, first sentence

“True believers in scientific analysis (**reductionism**) **deny a core belief of scientific synthesis (holism), which is that phenomena that emerge at higher levels of abstraction can affect what happens at the lowest level of abstraction.** To reject useful theories simply because they **conflict with a key assumption of the reductionist** research program is unscientific. Science involves rejecting theories by disproving hypotheses, not by whether they fit a particular research program. **If the defining characteristic of religious cults is unthinking adherence to dogma in the pursuit of religious ends, scientism is a religious cult.**”

was changed to:

“True believers in scientific analysis **want to restrict science to systems that fit their (reductionist) research program, which is based on the ideal of understanding everything about a system.** To reject **empirically testable** theories simply because they **don’t fit a particular** research program is unscientific. Science involves rejecting theories by disproving hypotheses, not by whether they fit a particular program.”

and moved to the end of the sixth paragraph of *Theories are refinements of everyday thinking.*

Chapter 2, Moral Science, fourth paragraph, last three sentences

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“Model quality tends to vary directly with the first tendency and inversely with the second. This explains why speculative bubbles based on a single model, e.g., tulips are a good investment, are relatively rare. This is not to say that speculative bubbles based on common assumptions, e.g., there will always be greater fools around to buy overpriced investments, are rare.”

were deleted.

Chapter 3, Alternatives to Pursuing Happiness, last paragraph, first sentence

Changed “yin and yang” to “yin (joy / pleasure-in-being) and yang (pleasure / pleasure-in-acting).”

Chapter 5, *Consider the Justice of Interventions*, third paragraph

“Given the difficulty of determining the justice of government intervention, legislators can choose to err on the side of passing an unjust law or not passing a just law. “Wise” policy makers know that it is better for governments to err on the side of not passing a just law. They know that the government that governs least governs best.”

was changed to:

“Determining the justice of government intervention is difficult. Legislators can choose to err on the side of passing an unjust law or not passing a just law. Wise policy makers know that it is better for governments to err on the side of not passing a just law. They know that the government that governs best governs least.”

Chapter 5, *Consider the Justice of Interventions*, fourth paragraph, first sentence

Changed “the “wise” case” to “erring on the side of not intervening.”

Appendix B, Conclusion, first paragraph

“Secular humanists tend to ignore our very real need to link or relink to something greater than ourselves. The danger of ignoring this potentially overwhelming need is the flourishing of such deeply flawed means of satisfying it as Marxist-Leninism, Nazism, Fascism, Maoism, and Baathism. Rather than distinguishing between secular and religious humanism, we ought to distinguish between materialist and dualist religious humanism.”

was moved to the end of the Sacrifice versus Prudence section.

Appendix C, last paragraph

“An accounting truism holds that policies that seek to maximize what is measured encourage production of what is measured at the expense of what is not measured. The

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Soviets learned this the hard way. When **central planners** set screw factory quotas by the number of screws produced, the factories produced too few big screws and too many small screws. When they set quotas by the weight of screws produced, the factories produced too many big screws and too few small screws. **Policies that focus on national income statistics encourage the production of what national income accountants measure at the expense of what they do not measure. The wise consider forms of wealth not measured by national income accountants. These include practical wisdom, trust, leisure skills, trading methods, and much production technology. Policy makers relying on national income statistics face the same type of problem Soviet policy makers faced. Ultimately, the solution to their problem will be the same.**

was changed to:

“An accounting truism holds that policies that seek to maximize what is measured encourage production of what is measured at the expense of what is not measured. Soviet **central planners** learned this the hard way. When **they** set screw factory quotas by the number of screws produced, the factories produced too few big screws and too many small screws. When they set quotas by the weight of screws produced, the factories produced too many big screws and too few small screws. **National income accounting statistics fail to capture improvements in** practical wisdom, trust, leisure skills, trading methods, and much production technology. **Whether national income accounting will yield as spectacular an avalanche catastrophe as that of Soviet central planning is open to debate.**”

Changes in Version 2004.10.28

Preface, second paragraph, second sentence

Changed “**simple** rules” to “**three** rules.”

Preface, third paragraph, second sentence

Changed “ought” to “**owe it to ourselves** (ought).”

Preface, fifth paragraph, first sentence

Changed “**intellectual** production tools” to “production **management** tools.”

Preface, last paragraph, last sentence

Changed “owe it to ourselves” to “ought.”

Chapter 1, Managerial Excellence, second paragraph

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“Mainstream economists commonly use “rational” to describe people who satisfy their wants efficiently. In contrast, we commonly use ‘wise’ to describe those who not only satisfy their wants efficiently but also want the “right” things. “Wise” people are not only efficient in satisfying their wants but also effective in choosing them. For example, the decision to smoke cigarettes efficiently is “rational,” but “foolish.” The “wise” choice is not to smoke. Choosing the right problem to solve is as important as choosing the right solution to a given problem.”

was promoted to the first paragraph.

Chapter 1, Managerial Excellence, new second paragraph, second and third sentences

“These managerial concepts help us to parse the problem of how best to achieve our ultimate ends into smaller, more tractable problems. Our need for them arises from our ignorance of our ultimate ends and how best to achieve them.”

were changed to:

“This pair of managerial concepts helps us parse the problem of how best to achieve our ultimate ends into smaller, more tractable problems without losing sight of our ultimate ends.”

Chapter 1, Managerial Excellence, end

Added the paragraph:

“Note that the distinction between managerial efficiency and effectiveness depends on the scale of the subordinate problem being considered. What is a matter of efficiency at one problem scale is a matter of effectiveness at another. Imagine a hierarchical organization that defines the scale of subordinate problems in terms of each member’s freedom to decide. All organization members would seek to be efficient. All members with superiors would leave matters of effectiveness to their superiors. The distinction between efficiency and effectiveness would depend on one’s level in the hierarchy. *Failure to define a problem scale can cause great confusion.*”

Chapter 1, third footnote (fourth in online version)

“These two managerial terms become meaningful only after we define the scale of what we consider to be a subordinate end. What is a matter of efficiency at one problem scale is a matter of effectiveness at another: Imagine a hierarchical organization that defines the scale of problems in terms of its members’ freedom to decide. All organization members would seek to be efficient. All save the person at the top would leave matters of effectiveness to their superiors. The distinction between efficiency and effectiveness would depend on one’s level in the hierarchy. As

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

members rose or fell in the hierarchy, what they considered to be matters of efficiency as opposed to matters of effectiveness would change.”

was deleted.

Chapter 1, Managerial Excellence, last paragraph, first sentence

“Unlike the marginalist concept of excellence, the managerial concept includes learning by doing.”

was changed to

“Unlike the marginalist concept of **efficiency**, the managerial concept of **efficiency and effectiveness** includes learning by doing.”

Chapter 2, second footnote, last sentence

Changed “program” to “**research** program.”

Chapter 2, Refining Ultimate Ends, seventh paragraph, last

“**When considering what they need to live a good life**, the wise focus not on their bodies, on their minds, *or* on their spirits, but rather on their bodies, minds, *and* spirits.”

were changed to:

“**T**he wise focus not on their bodies, on their minds, *or* on their spirits, but rather on their bodies, minds, *and* spirits.”

Chapter 2, Refining Ultimate Ends, ninth footnote (tenth paragraph, end)

“From this perspective, whenever we are tempted to use ‘social justice’ we ought to substitute ‘tribal justice’ in order to remind ourselves and others that we refer to a concept of justice that typically falls short of the normative end of reverence for life.”

was promoted to the body of the text to form a new tenth paragraph.

Chapter 2, Moral Science, last paragraph, last sentence

Changed “Many **positivist** scientists” to “Many scientists.”

Chapter 4, Managerial Excellence, fourth paragraph, last sentence

Changed “of decision-making” to “of **these** decision-making **processes**.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Chapter 4, Managerial Excellence, seventh paragraph

“Advances **in trade** that decentralize decision-making also can change decision strategies in ways that reduce turbulence. **Successful decentralization requires that top management trusts others to choose wisely and that decision-makers trust their bosses to judge them on the quality of their decisions. (If decision-makers believe they will be judged solely on results, they will tend to be too cautious.)**”

was changed to:

“Advances that **promote decentralized** decision-making also can change decision strategies in ways that reduce turbulence. **For example, the invention of a decision-management tool that improves managers ability to judge the quality of subordinates’ decision-making will tend to improve decision-making by encouraging subordinates to focus more on making better decisions and less on covering their backsides.**”

Chapter 4, Managerial Excellence, last paragraph, last sentence

Changed “Thus,” to “Hence,.”

Chapter 5, International Cooperation, last paragraph, end

Added the sentence:

“The world has yet to attain a sufficient level of lucidity to maintain a just world government.”

Appendix A, fourth footnote (fifth in online version)

“It is also possible to learn how to produce using less WIP inventory by reducing the production size of each kanban. Doing so is a major undertaking in that it involves changing the entire system at once. While learning to produce using fewer kanban makes a Toyota system more like continuous process manufacturing, learning to produce using smaller batch sizes makes it more like custom manufacturing.”

was deleted.

Appendix B, first footnote, second paragraph

“Foolish materialists claim that such recent developments in biology as the creation of a virus containing synthetic genetic material prove the materialist case. The dualist counter is that the potential for life exists everywhere. Wise materialists claim that their view is more scientific because materialist assumptions are easier to disprove than dualist assumptions are. The dualist counter is that this does not mean that materialist assumptions are true, only that they have yet to be proven false.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

was deleted.

Appendix B, Divine Law, second paragraph, last sentence

“Jesus tells us to judge them by their usefulness: “By their fruits you shall know them.” (Mathew 7:16)”

was changed to:

“In Mathew 7:16, Jesus tells us to judge them by their usefulness: “By their fruits you shall know them.””

Appendix B, Divine Law, last paragraph, last sentence

“In short, we would want intelligent life to pursue Schweitzer’s normative end of reverence for life.”

was deleted.

Changes in Version 2004.11.02

Preface, third paragraph, last sentence

“Rather than **seeking ever better** strategic theories, we **owe it to ourselves** (ought) to seek **ever better** strategies for learning.”

was changed to:

“Rather than *strategic theories*, we **ought** to seek *strategies for learning*.”

Preface, fourth paragraph, second sentence

Changed “They **ought**” to “They **owe it to themselves**.”

Preface, fifth paragraph, first sentence

Changed “These scholars also **ought**” back to “These scholars also **owe it to themselves**.”

Preface, last paragraph, last sentence

Changed “ought” back to “owe it to ourselves.”

Acknowledgments, fourth paragraph, second sentence

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Changed “In the early seventies,” to “In the early seventies.”

Acknowledgments, sixth paragraph, first sentence

Changed “F. A. Hayek” to “Friedrich Hayek.”

Chapter 1, Managerial Excellence, last paragraph

“Note that the distinction between managerial efficiency and effectiveness depends on the scale of the subordinate problem being considered. What is a matter of efficiency at one problem scale is a matter of effectiveness at another. Imagine a hierarchical organization that defines the scale of subordinate problems in terms of each member’s freedom to decide. All organization members would seek to be efficient. All members with superiors would leave matters of effectiveness to their superiors. The distinction between efficiency and effectiveness would depend on one’s level in the hierarchy. *Failure to define a problem scale can cause great confusion.*”

was once again returned to a footnote (#3 -- #4 online).

Chapter 1, The Strategy, first paragraph

“Changing our concept of excellence in means from marginalist “efficiency” to managerial “efficiency and effectiveness” requires making profound changes to how we think about the universal problem we face, the problem that defines our ultimate ends:

- **The scope must change.** The inexpensive replication of many types of useful knowledge makes it impossible to separate what happens in our society today from what will happen across the world next week or fifty years from now: discoveries travel around the globe and provide benefits until they are superseded or forgotten. Only the ability and willingness to use knowledge constrains its use. The scope of the universal problem must broaden from living members of a given society to current and future members of the community of beings capable of using the knowledge that its members create.
- **The focus must change.** The inexhaustibility of knowledge, the fact that using a pattern does not deplete it, makes it impossible to value knowledge by measuring the value of the non-knowledge resources it replaces. The best we can do is to measure its value subjectively using decision science techniques. The focus of the universal problem must change from studying *states of the world* to *the process of decision-making*.
- **The ultimate end must change.** This is to say that the meaning of ‘wealth’ must change if it is to remain the term that we use to describe what we seek. To think clearly about our ultimate ends and how best to achieve them, we need a concept of wealth that concerns what we *need* in order to achieve our ultimate ends. This is in sharp contrast to our current concept of wealth, which concerns what we currently *want*.

In short, the universal problem we face becomes one of how we intelligent beings choose to progress toward our ultimate ends.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

was changed to:

“Changing our concept of excellence in means from marginalist “efficiency” to managerial “efficiency and effectiveness” requires making profound changes to how we think about the universal problem we face, the problem that defines our ultimate ends. The inexhaustibility of knowledge, the fact that using a pattern does not deplete it, makes it impossible to separate what happens today from what happens one hundred years from now. We must consider not only the living but also future generations. Further, the inexpensive replication of many types of useful knowledge makes it impossible to separate what happens in our society from what happens in other societies. We must consider not only members of our society but also all other members of the community capable of using the knowledge that it creates. From the managerial perspective, the universal problem we face is one of how we intelligent beings choose to progress toward our ultimate ends.”

Chapter 1, The Strategy, second paragraph, first sentence

“The problem we face in progressing toward our ultimate ends is an open-ended one.”

was changed to:

“This universal problem is an open-ended one.”

Chapter 2, Refining Everyday Thinking, second paragraph, first sentence

“The recursionist strategy for learning how to live ever more wisely involves refining our ultimate ends by removing ignorance in the form of theories of ultimate ends.”

was changed to:

“The Toyota strategy for learning how to produce ever more wisely involves refining production operations by removing ignorance in the form of work-in-process inventory. (See Appendix A.) Similarly, the recursionist strategy for learning how to live ever more wisely involves refining our ultimate ends by removing ignorance in the form of theories of ultimate ends.”

Chapter 2, Theories produce predictions and explanations., sixth paragraph, fourth sentence

Changed “ought ” back to “owe to ourselves (ought).”

Chapter 2, second footnote, first sentence

“True believers in scientific analysis want to restrict science to systems that fit their (reductionist) research program, which is based on the ideal of understanding everything about a system.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

was changed to:

“True believers in scientific analysis want to restrict science to **theories** that fit their reductionist research program, which is based on the ideal of understanding everything about a system.”

Chapter 2, Moral Science, first paragraph, second sentence

Changed “**human** program ” to “program.”

Chapter 2, Moral Science, second paragraph, first sentence

Changed “**human** research program” to “research program.”

Chapter 2, Moral Science, second paragraph, last sentence

Changed “scientific methodologies and technologies” to “means of studying (our sensations of) reality.”

Chapter 2, Moral Science, third paragraph, first sentence

Changed “Scientists” to “Specialists.”

Chapter 3, Introduction, last sentence

“This chapter proposes recursionist alternatives to **four** of these concepts: consumption, trade, production, and profit.”

was changed to:

“This chapter proposes recursionist alternatives to **five** of these concepts: **wealth**, consumption, trade, production, and profit.”

Chapter 3, Consumption

Inserted the following section titled Wealth:

“To think clearly about our ultimate ends and how best to achieve them, we need a concept of wealth that concerns what we need to progress toward our ultimate ends. Recursionist wealth is goods and the resources to produce goods, where goods are *things that we humans need to progress toward our ultimate ends*. In sharp contrast, marginalist wealth is goods and the resources to produce goods, where goods are *economic goods that we consumers want*.”

Chapter 5, Decentralization, first paragraph, second sentence

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Changed “F. A. Hayek” to “Friedrich Hayek.”

Afterword, last paragraph, third and fourth sentences

“When talking to those on the left, I claim to be a “liberal progressive” in that I favor (classical) liberal means and ever more “progressive” subordinate ends. Although I am comfortable making these two claims, I am more comfortable defining my position in terms of whom I oppose.”

was changed to:

“When talking to those on the left, I claim to be a “classical liberal progressive” in that I favor classical liberal means and ever more “progressive” subordinate ends. Although I am comfortable making these two claims, I am more comfortable defining my position by defining whom I oppose.”

Afterword, last paragraph, end

Added the sentence:

“In terms of the current political spectrum, I am a radical centrist.”

Appendix B, Practical Benefits of Magical Mysticism, last paragraph, last sentence

Changed “rivets” to “connects.”

Appendix B, Ultimate Normative Ends of Life, eleventh paragraph, first sentence

Changed ““the need for self-actualization”” to “the need for "self-actualization".”

Appendix C, first paragraph, last sentence

“The biologist, having realized that wealth is human goods and the capacity to produce human goods, decides to market the tea at an affordable price.”

was deleted.

Appendix C, last paragraph, last sentence

“Whether national income accounting will yield as spectacular an avalanche catastrophe as that of Soviet central planning is open to debate.”

was changed to:

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“Ultimately, the solution to this measurement problem will be the same as that of Soviet central planning, which is the replacement of the decision-making system with a system that is less dependent on problematic measurements.”

Changes in Version 2004.11.13

Preface, third paragraph, last sentence

“Rather than *strategic theories*, we ought to seek *strategies for learning*.”

was changed to:

“Rather than *strategic theories*, we ought to seek *ever better strategies for learning*.”

Preface, fourth paragraph, third and fourth sentences

“The foremost task of decision-making is defining the universal problem we face, the problem that defines our ultimate ends. The intellectual tool that we use to define this problem ought to address all uncertainty.”

were changed to:

“The foremost task of decision-making is to define our ultimate ends. The intellectual tool that we use to define our ultimate ends ought to address all uncertainty.”

Acknowledgments, first paragraph, last sentence

Changed “time” to “most precious resource, time.”

Chapter 1, Managerial Excellence, second paragraph, last sentence

Changed “parse” to “divide.”

Chapter 1, The Strategy, first paragraph, second sentence

Changed “one hundred” to “one thousand.”

Chapter 1, Overview, first sentence

Changed “recursionist strategy for progressing toward our ultimate ends” to “managerial strategy for learning how to progress toward our ultimate ends ever more wisely.”

Chapter 1, Overview, fourth sentence

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Changed “**recursionist** alternatives” to “**managerial** alternatives.”

Chapter 2, Refining Everyday Thinking, first paragraph, third sentence

Changed “**recursionist** strategy for learning how to **live** ever more wisely” to “**managerial** strategy for learning how to **progress toward our ultimate ends** ever more wisely.”

Chapter 2, Refining Ultimate Ends, first paragraph, first sentence

Changed “**recursionist** strategy” to “**managerial** strategy **for learning how to progress toward our ultimate ends ever more wisely.**”

Chapter 2, Refining Ultimate Ends, third paragraph, last sentence

Changed “to **live** more wisely” to “to **consume** more wisely.”

Chapter 2, Refining Ultimate Ends, fourth paragraph, first sentence

Changed “subjectivist **foundation**” to “subjectivist **theory of consumption.**”

Chapter 2, Moral Science, sixth paragraph, second sentence

“Until all of us act wisely, managing this **process** well requires distinguishing between intellectual tools for helping us **to** follow our teleonomic programming and intellectual tools for helping us to predict how others will follow their teleonomic programming.”

was changed to:

“Until all of us act wisely, managing this **study** well requires distinguishing between intellectual tools for helping us follow our teleonomic programming (**e.g., intellectual tools that explain how to live ever more wisely**) and intellectual tools for helping us to predict how others will follow their teleonomic programming.”

Chapter 2, Moral Science, last paragraph, first sentence

Changed “**recursionist strategy**” to “**this definition of economic science.**”

Chapter 2, Moral Science, last paragraph, last sentence

Changed “**recursionist strategy**” to “**study of the ever-evolving process of discovering, testing, and applying knowledge useful in living good lives.**”

Chapter 3, Introduction, first sentence

Changed “**achieving** our ultimate ends” to “**pursuing** our ultimate ends.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Chapter 3, Introduction, last sentence

Changed “**recursionist** alternatives” to “**managerial** alternatives.”

Chapter 3, Wealth, second sentence

Changed “**Recursionist** wealth” to “**Managerial** wealth.”

Chapter 3, Consumption, second sentence

Changed “**recursionist** view” to “**managerial** view.”

Chapter 3, *Human Capital, Work, and Leisure*, second paragraph, first sentence

Changed “**recursionist** view” to “**managerial** view.”

Chapter 4, Avalanche Catastrophes, last paragraph, last sentence

Changed “**G**overnor” to “**g**overnor.”

Chapter 5, *Consider the Justice of Interventions*, second paragraph, first sentence

Changed “**recursionist** perspective” to “**managerial** perspective.”

Chapter 5, Just Taxation, fourth paragraph, last sentence

Changed “wise consumption” to “lucidity.”

Chapter 5, International Cooperation, second paragraph

Changed “**solution to the problem**” to “**means**” in the second sentence.

Reduced paragraph to a footnote.

Chapter 6, first paragraph, first sentence

Changed “how we **progress toward our ultimate ends**” to “how we **ought to live**.”

Chapter 6, first paragraph, last sentence

Changed “**what we ought to seek and how best to seek it**” to “**how to live ever more wisely**.”

Chapter 6, second paragraph

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Changed “**recursionist** strategy” to “**managerial** strategy **for learning how to live ever more wisely**” in the first sentence.

Changed “**recursionist** strategy” to “**managerial** strategy” in the balance of the paragraph.

Chapter 6, last paragraph, first sentence

Changed “**recursionist** moral vision” to “moral vision **put forth in this work.**”

Afterword, second to last paragraph, last sentence

Changed “normative end” to “normative **ultimate** end.”

Changes in Version 2004.11.15

[ClearEdits® review of Preface through Chapter 3.]

Preface, first paragraph, last sentence

“Act as if everything that you do will eventually become public knowledge.”

was changed to:

“Assume that your actions will become widely known.”

Preface, third paragraph, first sentence

Changed “**three** rules” to “rules.”

Preface, third paragraph, first sentence

Changed “**desire**” to “**wish.**”

Preface, fourth paragraph, fifth sentence

Changed “all of its own fundamental propositions” to “basic assumptions.”

Preface, last paragraph

Changed “**demonstrated**” to “showed” in the first sentence.

Changed “**demonstrates**” to “shows” in the second sentence.

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Acknowledgments, first paragraph

“I would like to acknowledge a few people who have been especially helpful in writing this book. The first is Frederick Sontag, Pomona College’s much beloved professor of philosophy and theology. Fred was extremely generous with his most precious resource, time.”

was changed to:

“A poster in my high school physics classroom proclaimed: *“The problem, once solved, is simple.”* To this I add: *“The problem, once found, is obvious.”*”

I would like to acknowledge several people who have helped me find the problems that led to this treatise. The first is Frederick Sontag, Pomona College’s much beloved professor of philosophy and theology. Fred has long encouraged me to become more than I am. In helping me do so he has been extremely generous with his most precious resource, his time.”

Acknowledgments, fourth paragraph

Changed “who” to “whom” in the fourth sentence.

Deleted the last two sentences: “A poster in my high school physics classroom proclaimed: *“The problem, once solved, is simple.”* To this I add: *“The problem, once found, is obvious.”*”

Acknowledgments, last paragraph, last sentence

Changed “thinking” to “beliefs.”

Chapter 1, Mainstream Economics' Blind Spot, first paragraph

Changed “effectively” to “well” in the first sentence.

Chapter 1, Mainstream Economics' Blind Spot, second paragraph

Changed “fundamental” to “very important” in the first sentence.

Chapter 1, Mainstream Economics' Blind Spot, fourth paragraph

Deleted “and desires” in the third sentence.

Changed “in the use of” to “using” in the last sentence.

Changed “achieving” to “reaching” in the last sentence.

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Chapter 1, Mainstream Economics' Blind Spot, fifth paragraph, second sentence

Changed “**achieve**” to “**reach**.”

Chapter 1, Mainstream Economics' Blind Spot, sixth paragraph, first sentence

Changed “**units of a particular part**” to “**widgets**.”

Chapter 1, Mainstream Economics' Blind Spot, eighth paragraph

Changed “**determine the value of**” to “**evaluate**” in the fourth sentence.

Deleted “**, the fact that using a pattern does not wear it out,**” in the fifth sentence.

Deleted “**in the future**” in the sixth sentence.

Chapter 1, Mainstream Economics' Blind Spot, last paragraph

Deleted “**thinking in terms of**” in the first sentence.

Changed “**reduced**” to “**cut**” in the second sentence.

Changed “**who still require**” to “**with**” in the fourth sentence.

Deleted “**several days before the first of these parts is assembled**” in the fourth sentence

Changed “**Holding this much inventory**” to “**This**” in the fifth sentence.

Changed “**increases**” to “**support**” in the sixth sentence.

Deleted “**the pace of**” in the sixth sentence

Deleted “**by retarding feedback**” in the seventh sentence

Chapter 1, Managerial Excellence, second paragraph

Changed “**Instead of**” to “**Rather than**” in the first sentence.

Changed “**achieving**” to “**reaching**” in the first sentence.

Changed “**achieve**” to “**pursue**” in the last sentence.

Chapter 1, Managerial Excellence, last paragraph, second sentence

Deleted “**the next generation of**.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Chapter 1, Managerial Excellence, last paragraph, fifth sentence

Deleted “digital technology was relatively immature and so.”

Chapter 1, The Strategy, first paragraph

Changed “requires” to “calls for” in the first sentence

Deleted “, the fact that using a pattern does not deplete it,” in the second sentence.

Changed “inexpensive replication of” to “low cost of copying” in the fourth sentence.

Chapter 1, The Strategy, fourth paragraph

Changed “begins” to “starts” in the first sentence.

Deleted “of carrying out the chosen solution” in the first sentence.

Changed “However” to “But” in the fourth sentence.

Chapter 1, The Strategy, fifth paragraph

Deleted “mistakes in the form of” in the second sentence.

Deleted “mistakes in the form of” in the third sentence.

Chapter 1, The Strategy, last paragraph

Changed “achieving” to “pursuing” in the fourth sentence.

Changed “implement” to “carry out” in the fourth sentence.

Chapter 1, Overview, sixth sentence

Deleted “amount of.”

Chapter 2, Refining Everyday Thinking

Deleted “ignorance in the form of” in the first sentence.

Deleted “ignorance in the form of” in the third sentence.

Changed “requires” to “calls for” in the last sentence.

Deleted “the nature of” in the last sentence.

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Chapter 2, *Theories are tools for producing useful knowledge.*, first paragraph, second sentence

“Although Einstein’s theory of relativity provides more accurate answers **than** Newtonian mechanics, **the latter** is the more useful for plotting a spacecraft’s trajectory.”

was changed to:

“Although Einstein’s theory of relativity provides more accurate answers, Newtonian mechanics is the more useful for plotting a spacecraft’s trajectory.”

Chapter 2, *Theories produce predictions and explanations.*, second paragraph

Deleted “**relatively**” in the first sentence.

Deleted “**currently**” in the last sentence.

Deleted “, **e.g., string and complexity theories**” in the last sentence

Chapter 2, *Theories produce predictions and explanations.*, third paragraph

Deleted “**relatively**” in the first sentence.

Changed “In *deterministic chaotic systems*, we can explain without being able to predict equally well.” to “Chaos theory provides a means of explaining *deterministic chaotic systems* without being able to predict these systems equally well.”

Chapter 2, *Theories produce predictions and explanations.*, fifth paragraph

Changed “**balancing the production of**” to “**producing**” in the first sentence.

Chapter 2, *Theories produce predictions and explanations.*, last paragraph

Deleted “**currently**” in the second sentence.

Deleted “**under particular circumstances**” in the second sentence.

Deleted “**currently**” in the third sentence.

Changed “**complete**” to “greater” in the fourth sentence.

Changed “**In short**” to “**In other words**” in the last sentence.

Chapter 2, *Theories are refinements of everyday thinking.*, first paragraph

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Deleted “the nature of” in the second sentence.

Chapter 2, *Theories are refinements of everyday thinking.*, second paragraph

Deleted “the process of” in the second sentence.

Changed “cannot describe, but can nevertheless identify, ” to “identify but not describe” in the last sentence.

Chapter 2, *Theories are refinements of everyday thinking.*, second paragraph

Deleted “the process of” in the second sentence.

Changed “ cannot describe, but can nevertheless identify, ” to “identify but not describe” in the last sentence.

Chapter 2, *Theories are refinements of everyday thinking.*, third paragraph

Changed “the universal set of worldly knowledge” to “worldly knowledge (U)” in the first sentence.

Changed “is the set of” to “are” in all (three occurrences).

Changed “refine worldly narratives” to “refine worldly narratives (A)” in all (two occurrences).

Chapter 2, *Theories are refinements of everyday thinking.*, fourth paragraph

Much scientific testing has become the province of specialists. Specialists invent ever more sophisticated (1) tools for enhancing our senses, e.g., telescopes, microscopes, cloud chambers, and particle accelerators; (2) tools for enhancing our common sense , e.g., formal logic, algebra, analytical geometry, calculus, statistics, and computer simulation; and (3) testing methods and procedures.

was deleted.

Chapter 2, *Theories are refinements of everyday thinking.*, new fourth paragraph

Changed “specialists” to “scientists” in the first sentence.

Changed “is the set of” to “are” in the fourth sentence.

Deleted the last two sentences: “The wise distinguish between these theories and those that predict: when talking about scientific theories that predict but do not explain ($C \cap B'$), they are careful to say that a set of factors *correlates with* rather than *causes* the result.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Chapter 2, *Theories are refinements of everyday thinking.*, new fifth paragraph

Inserted: “ $(C \cap D)$ ” in the first sentence.

Changed the last three sentences from:

“Practically, theories that explain are partial descriptions of reality that we use to find problems to solve. We test theories by how well they perform their function. We test theories that explain by how well they help us find problems to solve.”

were promoted to a new paragraph and changed to

“Practically, we test theories by how well they perform their function. We test theories that predict (C) by how well they help us predict. We test theories that explain (D) by how well they help us find problems to solve.”

Chapter 2, *Theories are refinements of everyday thinking.*, new sixth paragraph

Changed “concept of scientific testing” to “metamethodology” in the first sentence.

Deleted “quite” in the second sentence.

Changed “quite as well as” to “better than” in the second sentence.

Changed “However,” to “But” in the fourth sentence.

Changed “eventually” to “later” in the last sentence.

Chapter 2, *Theories are refinements of everyday thinking.*, new seventh paragraph

Changed “both a theory that predicts and one that explains” to “a theory that explains and one that predicts” in the second sentence.

Changed “eventually” to “later” in the third sentence.

Deleted “predict and the leading theories that” in the fourth sentence.

Changed “. However, we” to “, but” in the last sentence.

Chapter 2, Refining Ultimate Ends, first paragraph

Changed “implementing” to “carrying out” in the second sentence.

Chapter 2, Refining Ultimate Ends, second paragraph, fifth and sixth sentences

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“There is truth in both views. To obtain a more useful truth, we need an explicitly moral theory of evolutionary economics — one that removes the artificial barrier separating excellence in what economists currently deem to be consumption, from excellence in what they deem to be production and trade.”

were promoted to a new paragraph and changed to

“To progress most readily, we need an explicitly moral theory of evolutionary economics — one that removes the artificial barrier separating excellence in what Austrian economists deem to be consumption, from excellence in what they deem to be production and trade.”

Chapter 2, Refining Ultimate Ends, new fourth paragraph

Changed “require” to “call for” in the first sentence.

Deleted “fundamental” in the second sentence.

Chapter 2, Refining Ultimate Ends, new fifth paragraph

“We can correct this problem by replacing Austrian economics’ subjectivist theory of consumption with an evolutionary one. To do so, the explanations that we use to think about how best to satisfy our needs and those that we use to identify our needs must both fit together and work together. We can insure that these two types of explanations fit together by defining our needs and ultimate ends tautologically: *our needs are those things we need to progress toward our ultimate ends and our ultimate ends are what we progress toward when we satisfy our needs*. We can insure they work together by assuming that we are motivated to satisfy our needs. Theories that look to our internal programming to explain what motivates us satisfy both of these conditions.”

was changed to:

“We can correct this problem by replacing Austrian economics’ subjectivist theory of consumption with an evolutionary one. We can do so by basing our theory of consumption on theories that look to our internal programming to explain what motivates us.⁴

⁴ The explanations that we use to think about how best to satisfy our needs and those that we use to identify our needs must both fit together and work together. We can insure that these two types of explanations fit together by defining our needs and ultimate ends tautologically: *our needs are those things we need to progress toward our ultimate ends and our ultimate ends are what we progress toward when we satisfy our needs*. We can insure they work together by requiring that we are motivated to satisfy our needs. Theories that look to our internal programming to explain what motivates us satisfy both of these requirements.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Chapter 2, Refining Ultimate Ends, new seventh paragraph

Deleted “currently” in the fourth sentence.

Deleted “Over time” in the last sentence.

Changed “eliminating” to “culling” in the last sentence.

Chapter 2, Refining Ultimate Ends, new eighth paragraph

Changed “eliminate teleonomic theories by developing rules for eliminating theories that fail to help us identify what we need to achieve” to “cull teleonomic theories that fail to help us identify what we need to pursue” in the first sentence.

Changed “oxygen, water, and nutrition” to “oxygen and water” in the third sentence (two occurrences).

Changed “eliminate” to “cull” in the sixth sentence.

Changed “Hence, we ought to cull any theory that attributes human motivation to a single level of abstraction” to “We ought to cull all simplistic explanations of human behavior” in the eighth sentence.

Changed “prescriptive” to “teleonomic” in the ninth sentence (three occurrences).

Chapter 2, Refining Ultimate Ends, new ninth paragraph

Changed “eliminate” to “cull” in the first sentence.

Deleted “by developing rules for eliminating those” in the first sentence.

Changed “This” to “Doing so wisely” in the second sentence.

Deleted “particular” in the sixth sentence.

Deleted “in order” in the seventh sentence.

Changed “a particular need at a particular moment in time” to “a need” in the eighth sentence.

Deleted “particular” in the last sentence (two occurrences).

Chapter 2, Refining Ultimate Ends, new tenth paragraph

Deleted “theories, rules, customs, etc.” in the second sentence.

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Changed “**typically**” to “**usually**” in the ninth sentence.

Chapter 2, Refining Ultimate Ends, last two paragraphs

Changed “**eliminate**” to “**cull**” in all (two occurrences).

Changed “**eliminating**” to “**culling**” in all (one occurrence).

Chapter 2, Moral Science, second paragraph

Deleted “**in turn**” in the second sentence.

Added the following sentences:

“These inventions include ever more sophisticated (1) tools for enhancing our senses (telescopes, microscopes, cloud chambers, particle accelerators); (2) tools for enhancing our common sense (formal logic, algebra, analytical geometry, calculus, statistics, computer simulation); and (3) testing methods and procedures.”

Chapter 2, Moral Science, fourth paragraph

Deleted “**relatively**” in the first sentence.

Changed “**due to**” to “**caused by**” in all (two occurrences).

Chapter 2, Moral Science, sixth paragraph, second sentence

Deleted “(e.g., **intellectual tools that explain how to live ever more wisely**).”

Chapter 2, Moral Science, last paragraph, last sentence

“The **study of the** ever-evolving process of discovering, testing, and applying knowledge useful in living good lives is a scientific research program of, by, and for all intelligent life.”

was changed to:

“ The ever-evolving process of discovering, testing, and applying knowledge useful in living good lives is a scientific research program of, by, and for all intelligent life. **The study of this research program is part of this research program.**”

Chapter 3, Introduction, first two sentences

“Managerial excellence is **the wise use of resources in pursuing our ultimate ends. We increase excellence by** choosing **better** subordinate ends and **better** means to **achieve** our chosen subordinate ends.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

were changed to:

“Managerial excellence is **is a matter of** choosing subordinate ends and means to our chosen subordinate ends **wisely.**”

Chapter 3, Wealth, first sentence

“**To think clearly about our ultimate ends and how best to achieve them, we need a concept of wealth that concerns what we need to progress toward our ultimate ends. Managerial wealth is goods and the resources to produce goods, where goods are things that we humans need to progress toward our ultimate ends. In sharp contrast, marginalist wealth is goods and the resources to produce goods, where goods are economic goods that we consumers want.**”

were changed to:

“**Wealth is goods and the resources to produce goods. Marginalist goods are scarce resources that we want. In sharp contrast, managerial goods are those things that we need to progress toward our ultimate ends.**”

Chapter 3, *Pleasure and Pain*, first paragraph

Changed “**However**” to “**Regrettably**” in the third sentence.

Chapter 3, *Pleasure and Pain*, third paragraph

“In Western ethics, Aristotle best defines pleasure and Spinoza best defines joy. Aristotle defined pleasure as **the thing that perfects or completes activity. Pleasure comes from** being absorbed in activity. To give us pleasure, an activity must not be so easy as to be boring, nor so difficult as to be overwhelming. Work that does not challenge us is boring and work that challenges us too much is overwhelming. Between these two extremes there is a level that enables us to become absorbed in work. **Complete pleasure, ecstasy, is a matter of completely losing ourselves in activity.** Pain-in-acting is anything that interferes with losing ourselves in activity.”

was changed to

“In Western ethics, Aristotle best defines pleasure and Spinoza best defines joy. Aristotle defined pleasure as losing ourselves in activity. To give us pleasure, an activity must not be too easy or too difficult. An activity that does not challenge us is boring and work that challenges us too much is overwhelming. Between these two extremes there is a level that enables us to lose ourselves in activity. Pain-in-acting is anything that interferes with losing ourselves in activity.”

Chapter 3, *Pleasure and Pain*, fourth paragraph

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Changed “**impedes**” to “**hinders**” in the last sentence.

Chapter 3, *Pleasure and Pain*, fifth paragraph, first sentence

“We can learn to **become absorbed** in any activity **and so we can learn to find pleasure in any activity.**”

was changed to:

“We can learn to lose ourselves in any activity.”

Chapter 3, *Pleasure and Pain*, sixth paragraph

Changed “**becoming absorbed**” to “**losing ourselves**” in all (three occurrences).

Chapter 3, *Vicious Circles*, second paragraph

Changed “**become absorbed**” to “**lose ourselves**” in the first sentence.

Chapter 3, *Practical Wisdom*, first paragraph

Changed “**Achieving happiness**” to “**Living a good life**” in the second sentence.

Deleted “**, which we need to prescribe general ends**” in the third sentence.

Changed “**determine specific**” to “**choose subordinate**” in the fourth sentence.

Changed “**a moderate amount of good fortune**” to “**a bit of good luck**” in the last sentence.

Chapter 3, *Practical Wisdom*, second paragraph

Changed “**Finally**” to “**Fourth**” in the fifth sentence.

Chapter 3, *Practical Wisdom*, third paragraph

“**In choosing a wise course of action, we must choose an effective end and the most efficient means to it.** There are three basic means of choosing **ends and means** wisely: (1) deliberation, (2) decision rules, and (3) discipline. Deliberation involves choosing the appropriate model for the given situation, drawing a conclusion from that model, and judging the validity of the conclusion. Using decision rules involves selecting the appropriate rule and applying it wisely. Strong appetites and emotions can frustrate deliberation and decision rules by overwhelming our perception, intuition, and reason. In contrast, discipline, which is the conscious formation and use of habits, is relatively immune to appetites and emotions. People acting by habit can act wisely even when strong appetites or emotions interfere with their faculties. e.g., soldiers perform drills

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

to instill discipline so that they can act wisely in battle. Acting wisely is often a matter of knowing which of these three means to use.”

was changed to

“There are three basic means of choosing wisely: deliberation, decision rules, and discipline. Each has its advantages and disadvantages. Deliberation is thorough but costly. Applying decision rules is less thorough but also less costly. Discipline is the least thorough and least costly. It is also the least susceptible to strong appetites and emotions, which can overwhelm our perception, intuition, and reason. Acting wisely is often a matter of knowing which of these three means to use.”

Chapter 3, *Two means of pursuing happiness.*, first three paragraphs

“Aristotle and Spinoza provide us with different means of pursuing happiness. Aristotle asks us to look for moral virtue in others. **Spinoza asks us to look into ourselves.**

“**Aristotle** believed that moral virtue **concerns** the habit of wanting the right things, which we develop by acting as if we want the right things. **He determined moral virtue by examining the characteristics of the wise. He defined these characteristics in terms of emotions or actions. With one exception, he associated each of these characteristics with one virtue and two vices. The virtue is having the proper amount of the characteristic. The vices are having either too little or too much. The emotion of confidence yields the virtue of courage and the vices of cowardice and recklessness. The act of sharing yields the virtue of generosity and the vices of stinginess and extravagance. The exception to this “golden mean” rule is curiosity: Aristotle believed that we can never learn too much.**

“**Spinoza** believed that **all emotions concern movements toward or away from perfection. We achieve true freedom and happiness by addressing** the causes of our emotions rationally. **In terms of our needs model, we develop moral virtue by learning to understand our needs and the best means of satisfying them. We achieve true freedom and happiness by satisfying our needs rationally.”**

were changed to:

“Aristotle and Spinoza provide us with different means of pursuing happiness. Aristotle asks us to look for moral virtue in the wise. **He** believed that moral virtue **is** the habit of wanting the right things, which we develop by acting as if we want the right things. **In contrast, Spinoza asks us to look into ourselves. He** believed that **moral virtue is the ability to address** the causes of our emotions rationally, **which** we develop by learning to understand our needs and the best means of satisfying them.”

Chapter 3, *Two means of pursuing happiness.*, last paragraph

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Changed “but **rather** when” to “but when” in the first sentence.

Chapter 3, *Alternatives to Pursuing Happiness*, first paragraph, second sentence

Deleted “(**per se**).”

Chapter 3, *Human Capital, Work, and Leisure*, first paragraph, first sentence

Changed “**increases**” to “**raises**.”

Chapter 3, Trade, first paragraph

Changed “**any**” to “**the**” in the first sentence.

Changed “**establishing**” to “**setting up**” in the last sentence.

Chapter 3, Trust, first paragraph

“**Knowledge of a means of trade is a necessary but not a sufficient condition for trade.** Trading partners **must also** trust one another to fulfill their roles in the trading relationship. *Trust is the belief that a person or thing will perform as expected.*”

were changed to:

“Trade **requires that** trading partners trust one another to fulfill their roles in the trading relationship. **Trust is the belief that a person or thing will perform as expected.**”

Chapter 3, Trust, third paragraph

“Trust **plays a particularly important role** in information age economies. Knowledge is **relatively** difficult to protect from theft: (1) many forms of knowledge can be easily duplicated, which makes them easy to steal; (2) stealing knowledge does not prevent its owner from using it, which makes the theft of knowledge easier to **conceal**; and (3) the legal recourse for stolen knowledge tends to be more expensive than it is for scarce resources, where evidence of theft is more clear-cut and the legal precedents tend to be better established. **The more expensive knowledge is to protect from theft, the less of it will be created.** Trust lowers the cost of protecting knowledge from theft.”

was changed to:

“In information age economies, trust is a strategic asset. Knowledge is difficult to protect from theft: (1) many forms of knowledge can be easily duplicated, which makes them easy to steal; (2) stealing knowledge does not prevent its owner from using it, which makes the theft of knowledge easier to **hide**; and (3) the legal recourse for stolen knowledge tends to be more expensive than it is for scarce resources, where

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

evidence of theft is more clear-cut and the legal precedents tend to be better established. Trust lowers the cost of protecting knowledge from theft, **which promotes creating knowledge.**”

Chapter 3, *Three Common Misbeliefs*, first paragraph

“Several common beliefs hinder our ability to **increase** excellence in trade. The most important of these is the belief that we cannot **improve the means of trade**. This belief tends to blind us to the potential of **improving the means of trade**. Failing to see this potential **in turn** tends to blind us to other means of **increasing** managerial excellence. For example, failing to see the benefits of **increasing the efficiency of** trade caused many American manufacturers to perceive the Toyota Production System as a collection of techniques for **minimizing** WIP inventory. By adopting these techniques they **thought** they could catch up to their Japanese competitors. They soon discovered that by the time they adopted current Japanese techniques, the Japanese had developed new ones. The Toyota system is a more than a collection of techniques for **minimizing** WIP inventories. It is a strategy for learning by doing.”

was changed to:

“Several common beliefs hinder our ability to **promote** excellence in trade. The most important of these is the belief that we cannot **promote excellence in trade**. This belief tends to blind us to the potential of **promoting excellence in trade**. Failing to see this potential tends to blind us to other means of **promoting** managerial excellence. For example, failing to see the benefits of **promoting excellence in** trade caused many American manufacturers to perceive the Toyota Production System as a collection of techniques for **cutting** WIP inventory. By adopting these techniques they **believed that** they could catch up to their Japanese competitors. They soon discovered that by the time they adopted current Japanese techniques, the Japanese had developed new ones. The Toyota system is a more than a collection of techniques for **cutting** WIP inventories. It is a strategy for learning by doing.”

Chapter 3, *Three Common Misbeliefs*, second paragraph

Changed “**increasing**” to “**promoting**” in the first sentence.

Chapter 3, *Three Common Misbeliefs*, third paragraph

“A third common belief that hinders **increasing** excellence in trade is the belief that **increasing competition decreases cooperation. Competition is the process of determining which competitor is best.** When excellence **includes** cooperation, **increasing** competition tends to **increase** cooperation. Consider the game of basketball. Playing basketball well requires **cooperation in the form of** teamwork. Players compete by cooperating well. **The level of play**, including **the level of** teamwork, tends to rise with closeness of the score.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

was changed to:

“A third common belief that hinders **promoting** excellence in trade is the belief that **competition opposes cooperation**. When excellence **calls for** cooperation, **promoting** competition tends to **promote** cooperation. Consider the game of basketball. Playing basketball well requires teamwork. Players compete by cooperating well. Excellence of play, including excellence in teamwork, tends to rise with closeness of the score.”

Chapter 3, *Three Common Misbeliefs*, last paragraph

Changed “**increase**” to “**promote**” in the first sentence.

Deleted “**both**” in the last sentence.

Changes in Version 2004.11.19

[ClearEdits® review of Chapter 4.]

Preface, fourth paragraph, last sentence

Changed “**Only a**” to “**A**.”

Acknowledgments, first paragraph

Reordered acknowledgments temporally. Adjusted opening sentences in tributes to Likens and Douglass.

Chapter 1, Overview, first sentence

Changed “Managerial **Excellence**” to “Managerial **Concepts**.”

Chapter 3, title

Changed “Managerial **Excellence**” to “Managerial **Concepts**.”

Chapter 4, Increasing Managerial Excellence, title

Changed title to “**Progress**.”

Chapter 4, Progress, first paragraph, first sentence

“Increasing managerial excellence is a matter of converting new information into new applications of knowledge.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

was changed to:

“Progress is movement toward the ultimate normative end of a good life for all. In information age economies, the primary means of progress involves increasing managerial excellence, which is a matter of converting new information into new applications of knowledge that is useful in progressing toward our ultimate ends.”

Chapter 4, Progress, first paragraph

Changed “**marginal increase in**” to “**new**” in the new fourth sentence.

Changed “**implement better means**” to “**apply new useful knowledge**” in the last sentence.

Chapter 4, Progress, second paragraph, second sentence

Deleted “**very.**”

Chapter 4, Progress, second paragraph, last two sentences

“A small raw material **price increase** might cause firms to react as marginalist theory predicts. **On the other hand**, it might either have no immediate effect or trigger a firm to adopt a new process that changes the industry.”

were changed to:

“ A small **rise in the price of a** raw material might cause firms to react as marginalist theory predicts; it might have no immediate effect; or **it might** trigger a firm to adopt a new process that changes the industry.”

Chapter 4, Progress, third paragraph

Changed “**increase in managerial excellence**” to “**new application of useful knowledge**” in the first sentence.

Changed “**week**” to “**month**” in the last sentence.

Chapter 4, Progress, fourth paragraph

“**Increasing managerial excellence** has both deflationary and inflationary effects. In itself, **a better means either decreases the demand for goods and services or increases the amount or quality of goods and services available for sale, and so is deflationary. However, implementing it requires reallocating resources, a process that uses scarce resources without increasing output, and so is inflationary. Because the cost of reallocating resources tends to overwhelm the benefit of the new means in the short**

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

run, increasing managerial excellence tends to create a “bow wave” of inflation. The greater the cost of reallocating resources, the greater this bow wave is likely to be.”

was changed to:

“Applying new useful knowledge is inflationary in that it takes non-knowledge scarce resources from other uses. Once applied, the new knowledge is deflationary in that it frees non-knowledge scarce resources for other uses. Metaphorically, progress from increasing managerial excellence creates a “bow wave” of inflation.”

Chapter 4, Progress, fifth paragraph

“Economies are subject to waves of increases in managerial excellence. One reason for this is new products often require new production methods, which in turn require other new products, e.g., each new generation of integrated circuits requires more precise machine tools, cleaner manufacturing areas, and better design tools. Another reason is a major invention can trigger waves of increases in excellence, e.g., the invention of the transistor spawned countless inventions, innovations, and improvements.”

was deleted.

Chapter 4, Economic Turbulence, title

Changed title to “Turbulence.”

Chapter 4, Turbulence, first paragraph, second through fourth sentences

“The turbulent flow of one resource tends to create turbulent flow of related resources. The turbulent flow of labor causes unemployment, plus the turbulent flow of money and other resources. The turbulent flow of money or goods causes surges of inflation or deflation, plus the turbulent flow of labor and other resources.”

was changed to:

“Turbulence in the flow of one resource tends to create turbulence in the flow of related resources. Turbulence in the flow of money and goods tends to cause turbulence in the flow of labor. Turbulence in the flow of labor tends to cause turbulence in the flow of money and goods.”

Chapter 4, Turbulence, second paragraph

Changed “form and magnitude” to “amount and form” in the second sentence.

Deleted “the nature of” in the second sentence.

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Deleted “existing” in the third sentence.

Changed “a minimum of” to “little” in the third sentence.

Changed “However,” to “But” in the fourth sentence.

Deleted the last two sentences: “Similarly, if firms with published product prices foolishly raise their prices due to the mistaken belief that a temporary rise in input prices is permanent, inflation is likely to be more severe.”

Chapter 4, Turbulence, third paragraph

“Economic turbulence wastes time and other resources. Capturing the benefit of turbulence requires knowledge of how to do so.”

was changed to:

“Economic turbulence wastes time and other resources, which creates an opportunity to those who know how to lower it.”

Changed “necessary” to “needed” in the new second sentence.

Changed “reducing” to “lowering” in the last sentence.

Chapter 4, Economic Fluidity, title

Changed title to “Fluidity.”

Chapter 4, Fluidity, first paragraph

Changed “Implementing better means” to “Progress from applying useful knowledge” in the first sentence.

Changed “scarce resources” to “resources” in the first sentence.

Changed “increase excellence” to “move us forward” in the first sentence.

Chapter 4, Fluidity, second paragraph

Changed “general” to “important” in the second sentence.

Changed “implement” to “carry out” in the last sentence.

Chapter 4, Fluidity, third paragraph

Changed “within” to “in” in the first sentence.

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Chapter 4, Fluidity, fourth paragraph

Changed “**much to cut employment**” to “**many jobs to cut**” in the first sentence.

Chapter 4, Fluidity, fifth paragraph

Deleted “, **which determine what types of decisions the organization must make**” in the first sentence.

Deleted: “ To do their jobs well, those carrying out the selected alternative must understand what they are supposed to do. It also helps if they approve of the solution.”

Changed “**implementing**” to “**carrying out**” in the third sentence.

Deleted: “**To do their jobs well, those carrying out the selected alternative must understand what they are supposed to do. It also helps if they approve of the solution.**”

Changed “**increases**” to “**raises**” in the new fourth sentence.

Changed “**increase**” to “**raise**” in the new fourth sentence.

Deleted “**However,**” in the last sentence.

Chapter 4, Fluidity, sixth paragraph

Changed “**reduce**” to “**lower**” in the first sentence.

Chapter 4, Fluidity, seventh paragraph

Changed “**reduce**” to “**lower**” in the first sentence.

Chapter 4, Fluidity, last paragraph

“In freely evolving economies, individuals and managers experiment with new decision-making methods. In the long run, the best methods are emulated and the worst are discarded. Hence, freely evolving economies tend to become more fluid over time.”

was deleted.

Chapter 4, Avalanche Catastrophes, second paragraph

Changed “**minor**” to “**small**” in the first sentence.

Deleted “**particular**” in the fourth sentence.

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Changed “**this critical**” to “**the critical**” in the fourth sentence.

Changed “**greater slopes**” to “**slopes greater than the critical value**” in the fourth sentence.

Deleted the last sentence: “The former, *subcritical* sand piles tend to grow upward until their slopes reach the critical slope and the latter, *supercritical* ones tend to widen until their slopes return to the critical value.”

Chapter 4, Avalanche Catastrophes, third paragraph

Changed “**increases**” to “**steepens**” in the first sentence.

Changed “**increase stability**” to “**lessen the severity of avalanches**” in the second sentence.

Changed “**because it takes longer for the sand pile to grow upward to the steeper critical slope**” to “**an illusion**” in the fourth sentence.

Changed “This appears to indicate that fluidity has little effect on the number or size of catastrophes.” to “**an illusion**” in the fourth sentence.

Changed “**greater slopes**” to “**slopes greater than the critical value**” in the fourth sentence.

Chapter 4, Avalanche Catastrophes, fourth paragraph

Changed “**Whether or not**” to “**Regardless of whether**” in the first sentence.

Chapter 4, A Crude Look at the Whole, first paragraph

“Imagine an economy filled with free and wise people pursuing happiness. **Given that people pursuing happiness seek to find and implement better means** whenever they have the resources to do so, **the level of turbulence will tend toward a critical value**. **When turbulence exceeds the critical value**, people will be forced to spend more resources, particularly time, responding to turbulence. **This will leave fewer resources for finding and implementing better means**. The resulting decrease in new means will eventually decrease turbulence. On the other hand, when turbulence falls below the critical value, people will have more resources for finding and implementing better means. The resulting increase in new means will eventually increase turbulence. **In both cases**, the level of turbulence tends to **return to the** critical value. Except for the occasional major avalanche catastrophe, the economy will produce **what appears to be (but isn't) an exploitable** trade-off between transient inflation and unemployment.”

was changed to:

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“Imagine an economy filled with free and wise people pursuing happiness. **People will seek to apply new useful knowledge** whenever they have the resources to do so. **Their new applications of useful knowledge will raise the level of turbulence. As the level of turbulence rises,** people will spend more time **and other resources** responding to turbulence, **which will leave them less time and other resources for applying new useful knowledge.** **Given this dynamic process,** the level of turbulence **will tend toward** a critical value. Except for the occasional major avalanche catastrophe, the economy will produce **an illusory** trade-off between transient inflation and unemployment. **It will also become ever more fluid and so progress ever more rapidly.**”

Chapter 4, A Crude Look at the Whole, second paragraph

Changed “increasing managerial excellence” to “**progress from** increasing managerial excellence” in the first sentence.

Changed “**attempt**” to “**try**” in the second sentence.

Changed “**attempts**” to “**tries**” in the second sentence.

Chapter 4, Conclusion, first paragraph

Changed “**During the last half of the twentieth century many** intellectuals” to “**Many late industrial age** intellectuals **have**” in the first sentence.

Changed “**in order to**” to “**to**” in the first sentence.

Changed “**eliminate**” to “**rid us of**” in the first sentence.

Changed “**consequence**” to “**result**” in the third sentence.

Changed “unwise **as well as** unjust” to “**both** unwise **and** unjust” in the last sentence.

Changes in Version 2004.11.20

[ClearEdits® review of Chapter 5 and 6.]

Chapter 3, Production, last sentence

Deleted “(See Appendix A.)”

Chapter 5, footnote 4, first six sentences

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“Many today advocate the creation of a world government. This means of improving the quality of decision-making is problematic. In theory, government is a substitute for practical wisdom. In practice, special interest groups will cynically accept just ends while effectively denying the means of accomplishing them. The classic example is the so-called three-fifths clause in the United States Constitution, which counted slaves as three-fifths of a person for the purpose of representation in the House of Representatives. This clause guaranteed that the slave states could prevent the federal government from progressing toward the just end proclaimed in the Preamble.”

was changed to:

“Many today advocate creating a world government. This means of improving the quality of decision-making is problematic. In theory, government is a substitute for practical wisdom. In practice, special interest groups will cynically accept just normative ends while denying adequate means of progressing toward them. The classic example is the three-fifths clause in the United States Constitution, which guaranteed that the slave states could prevent progress toward the just ends proclaimed in the Preamble.”

Chapter 5, *Consider the Justice of Interventions*, first paragraph, end

Added the sentence:

“In contrast, “wise” policy makers consider not only the cost of enforcing laws but also the costs of learning.”

Chapter 5, *Consider the Justice of Interventions*, second paragraph

“From the managerial perspective outlined in this work, justice requires that we continuously learn how better to pursue happiness. Further, the cost of enforcing laws is much more problematic. Assume behavior “A” is useful in pursuing happiness and that if we perform “A,” we will eventually learn that “A” is useful. A government can prescribe “A” or let us learn that “A” is helpful. In theory, if the total cost of prescribing “A” is greater than the total cost of not prescribing “A,” then prescribing “A” is unjust. Further assume that behavior B is harmful and that if we perform “B,” we will eventually learn that “B” is harmful. A government can proscribe “B” or let us learn that “B” is harmful. In theory, if the total cost of proscribing “B” is greater than the total cost of not proscribing “B,” then proscribing “B” is unjust. What matters is the justice of interventions, not behaviors.”

was changed to:

“Policy makers face a choice between prescribing a behavior that helps us pursue happiness or letting us learn that the behavior helps us pursue happiness. If the cost of prescribing the behavior is greater than the cost of not prescribing the behavior, then prescribing then prescribing the behavior is unjust. Conversely, policy makers face a

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

choice between proscribing a behavior that hinders our pursuit of happiness or letting us learn that the behavior hinders our pursuit of happiness. If the cost of proscribing the behavior is greater than the cost of not proscribing the behavior, then proscribing then proscribing the behavior is unjust. *What matters is the justice of interventions, not behaviors.*”

Chapter 5, *Consider the Justice of Interventions*, third paragraph

Changed “**Determining the justice of** government intervention” to “**Judging** government interventions” in the first sentence.

Chapter 5, *Consider the Justice of Interventions*, fourth and fifth paragraphs

“Two arguments for erring on the side of not intervening are worth mentioning. First, to be effective, governments must **have the trust of the governed**. When governments intervene **unjustly or ineffectively**, they undermine **trust in their justice and effectiveness**. **Limiting governments to just and effective interventions tends to increase the trust of the governed, which in turn increases the effectiveness of interventions. As the people of the United States learned during Prohibition, trying to enforce an unenforceable law undermines respect for the law.**

“Second, unjust interventions tend to benefit a few people greatly and to harm many people only a little. As public choice economist Mancur Olson observed, this makes them nearly impossible to rescind.³ **Residents of the United States are still paying higher prices for many types of food due to Depression era emergency marketing programs. Given that** unjust government interventions are nearly impossible to rescind, prudence demands that policy makers err on the side of not intervening.”

were changed to:

“Two arguments for erring on the side of not intervening are worth mentioning. First, to be effective, governments **must be trusted to act wisely**. When governments intervene foolishly, they undermine their effectiveness. Second, unjust interventions tend to benefit a few people greatly and to harm many people only a little. As public choice economist Mancur Olson observed, this makes them nearly impossible to rescind.³ **Because** unjust government interventions are nearly impossible to rescind, prudence demands that policy makers err on the side of not intervening.”

Chapter 5, *Manage the Money Supply Passively*, second paragraph

Changed “**conceals**” to “**obscures**” in the third sentence.

Deleted “**both**” in the third sentence.

Chapter 5, *Manage the Money Supply Passively*, third paragraph

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“Burying problems postpones, not eliminates, turbulence. Only improving the quality of decision-making eliminates turbulence.”

was deleted.

Chapter 5, *Provide Moral Vision*, second paragraph

Changed “**increase**” to “**quicken**” in the third sentence.

Changed “ **following the virtuous path of accumulating wealth and accelerating change**” to “**pursuing happiness**” in the third sentence.

Chapter 5, Free Association, first paragraph

Changed “**While**” to “**Although**” in the last sentence.

Deleted “, **which would require the tendency toward lucidity to overwhelm less noble tendencies**” in the last sentence.

Chapter 5, Free Association, second paragraph

Changed “**the rise of market economies, and the industrial revolution**” to “**industrialization, and market economies**” in the first sentence.

Chapter 5, Free Association, third paragraph

Changed “**eliminate**” to “**lower**” in the third sentence.

Chapter 5, Free Association, fourth paragraph

Deleted “, **e.g., religious and fraternal organizations**” in the third sentence.

Deleted “**in the form of lower premiums**” in the fourth sentence.

Chapter 5, Just Taxation, first paragraph

Deleted “**the process of**” in the first sentence.

Chapter 5, Just Taxation, second paragraph

Changed “**the creation of**” to “**creating**” in all (two occurrences).

Deleted “**the consumption of**” in the fourth sentence.

Changed “**minimize**” to “**lower**” in the fifth sentence.

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Chapter 5, Just Taxation, fourth paragraph

Changed “**eliminating**” to “**ending**” in the first sentence.

Changed “**straightforward**” to “**clear**” in the first sentence.

Changed “**Depending on the elasticity of demand for the products that the corporation sells, the**” to “**The**” in the second sentence.

Changed “**either on its customers or its owners**” to “customers **and** owners” in the second sentence.

Chapter 5, Just Taxation, fifth paragraph

Changed “**eliminating**” to “**ending**” in the first sentence.

Chapter 5, Just Taxation, sixth paragraph

Changed “**Unfortunately**” to “**Regrettably**” in the third sentence.

Changed “**in order to**” to “**to**” in the fourth sentence.

Chapter 5, Just Taxation, last paragraph

“A just system ensures **both** minimum standards of individual welfare and ever wiser means of raising the general **level of** welfare. Governments best ensure **the former** and markets **the latter**. **For example, a** just system might combine a government run safety net program paid for by progressive income taxes with a tax exempt universal welfare savings account program. The **latter** would allow tax free **expenditures** for qualified retirement, medical, unemployment, and educational expenses. It would also allow unlimited giving to qualified charitable organizations. **Upon the death of the last exempt beneficiary**, all funds not willed to qualified charitable organizations would be taxed at rate at least as progressive as that of the income tax system. Ideally, the government safety net program would shrink to insignificance. **However, it** would never be **eliminated**. Like a militia, it would remain available for emergencies.”

was changed to:

“A just system ensures minimum standards of individual welfare and ever wiser means of raising the general welfare. Governments best ensure **minimum standards of individual welfare** and markets **best ensure ever wiser means of raising the general welfare**. **A** just system might combine a government run safety net program paid for by progressive income taxes with a tax exempt universal welfare savings account program. The **universal welfare savings account** would allow tax free **spending** for qualified retirement, medical, unemployment, and educational expenses. It would also allow unlimited giving to qualified charitable organizations. **After the last owner of the**

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

account dies, all funds not willed to qualified charitable organizations would be taxed at rate at least as progressive as that of the income tax system. Ideally, the government safety net program would shrink to insignificance **but** would never be **dissolved**. Like a militia, it would remain available for emergencies.”

Chapter 5, International Cooperation

Changed “**Nevertheless**” to “**Even so**” in the second sentence.

Chapter 5, Conclusion

Changed “**increasing**” to “**promoting**” in the second sentence.

Changed “**the kind of** government that encourages” to “governments that encourage” in the second sentence.

Chapter 6, second paragraph

Changed “**attempt**” to “**try**” in the third sentence.

Changed “**achieve**” to “**pursue**” in the third sentence.

Deleted “**with a minimum amount of wasteful turbulence**” in the third sentence.

Changed “ rather than the actions of **individuals**” to “**of government** rather than the actions of **the governed**” in the fourth sentence.

Changed “**requires**” to “**calls for**” in the last sentence.

Chapter 6, third paragraph

Deleted “**currently**” in the first sentence.

Deleted “**both**” in the last sentence.

Changes in Version 2004.11.22

[ClearEdits® review of Appendices.]

Acknowledgments, fourth paragraph

Added “**at Pomona**” to the first sentence.

Chapter 2, Refining Everyday Thinking, first paragraph

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Deleted “**toward our ultimate ends**” in the second sentence.

Deleted “**of ultimate ends**” in the second sentence.

Changed “**something about**” to “**the nature of**” in the last sentence.

Chapter 2, *Theories are subjective.*

Changed “**All theories**” to “**Theories**” in the first sentence.

Deleted the second sentence: “**We can conceive of the world in many ways.**”

Changed “**Thus, all**” to “**Hence,**” in the last sentence.

Chapter 2, Refining Ultimate Ends, seventh paragraph

Changed “**can**” to “**owe it to ourselves to**” in the first sentence.

Chapter 2, Refining Ultimate Ends, seventh paragraph

Changed “**can also**” to “**also owe it to ourselves to**” in the first sentence.

Chapter 2, Refining Ultimate Ends, eleventh paragraph

Added “**Similarly, whenever we are tempted to use ‘social science’ we ought to substitute ‘tribal science’ in order to remind ourselves and others that we refer to a science that usually falls short of the normative end of reverence for life.**” at the end of the last sentence.

Chapter 3, *Practical Wisdom*, first paragraph

Changed “**bit of good luck**” to “**moderate amount of good fortune**” in the last sentence.

Chapter 3, Human Capital, Work, and Leisure, second paragraph

Changed “**most efficient**” to “**best**” in the fourth sentence.

Chapter 4, A Crude Look at the Whole, second paragraph

Changed “progress” to “progress **from increasing excellence**” in the last sentence.

Chapter 4, Conclusion, first paragraph

Changed “progress” to “**progress from increasing excellence**” in the last sentence.

Chapter 5, *Consider the Justice of Interventions*, fourth paragraph

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Changed “As public choice economist Mancur Olson observed, this” to “This” in the fifth sentence.

Chapter 5, Fluid Relationships, third paragraph

Inserted paragraph break after the third sentence.

Chapter 6, second paragraph

Deleted “design decision strategies to” in the third sentence.

Changed “calls for” back to “requires” in the last sentence.

Afterword, seventh paragraph

Changed “progress” to “progress from increasing excellence” in the second sentence.

Changed “progress” to “progress from increasing excellence” in the fourth sentence.

Afterword, last paragraph

Changed “progress” to “progress from increasing excellence” in the fifth sentence.

Appendix A, Introduction, second paragraph

Changed “necessarily” to “always” in the third sentence.

Appendix A, Ever Leaner Production, second paragraph

Changed “Fortunately for Toyota, it” to “It” in the second sentence.

Deleted “, due to the inexhaustibility of knowledge,” in the last sentence.

Appendix A, Ever Leaner Production, third paragraph

Deleted “relatively” in the first sentence.

Appendix A, *Traditional Manufacturing Systems*, second paragraph

Changed “a single” to “one” in the second sentence.

Appendix A, *Traditional Manufacturing Systems*, last paragraph

Deleted “very” in the first sentence.

Changed “in order to” to “to” in the last sentence.

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Appendix A, *Folding in Production Operations*, second paragraph

Deleted “total” in the first sentence.

Appendix A, *Folding in Production Operations*, third paragraph

Changed “However,” to “But” in the fourth sentence.

Appendix A, *Folding in Production Operations*, last paragraph

Deleted “relative” in the second sentence.

Appendix A, *Smoothing Flows*, second paragraph

Changed “minimizing” to “lowering” in the fourth sentence.

Appendix A, *Smoothing Flows*, third paragraph

Changed “by themselves” to “alone” in the second sentence.

Changed “kind of” to “type of” in the second sentence.

Deleted “useful knowledge in the form of” in the fifth sentence.

Changed “eliminates ” to “ends” in the last sentence.

Appendix A, *Smoothing Flows*, last paragraph

Changed “stop at the end of” to “end at” in the first sentence.

Changed “varying” to “variations in” in the last sentence.

Appendix A, *Manufacturing Techniques*, first paragraph

Deleted first two sentences: “Toyota manufacturing techniques evolve over time. However, the underlying principles remain constant.”

Appendix A, *Organization, Procedures, and Tools*, first paragraph

Changed “,” to “;” in the first sentence (two occurrences).

Deleted “Generally,” in the second sentence.

Appendix A, *Organization, Procedures, and Tools*, fifth paragraph

Deleted “both” in the first sentence.

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Appendix A, *Organization, Procedures, and Tools*, sixth paragraph

Changed “, e.g.,” to “. For example,” in the third sentence.

Appendix A, *Organization, Procedures, and Tools*, ninth paragraph

Changed “, e.g.,” to “. For example,” in the third sentence.

Appendix A, *Organization, Procedures, and Tools*, tenth paragraph

Changed “the use of” to “using” in the first sentence.

Changed “objective is eliminating” to “goal is ending” in the second sentence.

Appendix A, *Organization, Procedures, and Tools*, last paragraph

Changed “facilitate” to “promote” in the first sentence.

Changed “a single” to “one” in the first sentence.

Appendix A, *Production Links*, first paragraph

Deleted “a number of” in the first sentence.

Changed “reduce” to “cut” in the last sentence.

Appendix A, *Production Links*, third paragraph

Changed “begins” to “starts” in the first sentence.

Changed “locates” to “finds” in the fifth sentence.

Changed “completes” to “finishes” in the sixth sentence.

Appendix A, *Production Links*, fourth paragraph

Changed “begin” to “start” in the first sentence.

Changed “attempts” to “tries” in the third sentence.

Changed “predict the exact nature of” to “find” in the fourth sentence.

Deleted “both” in all (four occurrences).

Appendix A, *Knowledge Induction*, first paragraph

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Changed “**determining**” to “**finding**” in the first sentence.

Changed “**sufficiently** complex” to “complex **enough**” in the third sentence.

Appendix A, *Knowledge Induction*, second paragraph

Changed “**reducing**” to “**cutting**” in the second sentence.

Changed “**attempts**” to “**tries**” in the seventh sentence.

Appendix A, *Knowledge Induction*, third paragraph

Changed “**attempts**” to “**tries**” in the last sentence.

Appendix A, *Knowledge Induction*, fourth paragraph

Changed “**Finally**, the team can” to “**The** team can **also**” in the first sentence.

Appendix A, *Knowledge Induction*, fifth paragraph

Changed “**e.g.**” to “**for example**” in the first sentence.

Appendix A, *Knowledge Induction*, sixth paragraph

Changed “**The nature of** these problems **is**” to “**These** problems **are**” in the second sentence.

Deleted the fifth sentence “**The latter is a matter of not accepting a problem until uncovering five layers of causation.**”

Appendix A, *Visibility*, first paragraph

Deleted “**straightforward work flow,**” in the second sentence.

Changed “**Typically, each**” to “**Each**” in the fifth sentence.

Changed “**may indicate**” to “**shows**” in the seventh sentence.

Changed “**one may warn**” to “**light warns**” in the seventh sentence.

Changed “**one may signal**” to “**light signals**” in the seventh sentence.

Changed “**assistance**” to “**help**” in the seventh sentence.

Changed “**or a single red one indicates**” to “**signals**” in the eighth sentence.

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Changed “, **while**” to “**and**” in the eighth sentence.

Changed “**indicates**” to “**shows**” in the eighth sentence.

Appendix A, *Human Conditions*, first paragraph

Deleted the last sentence: “**Improving working conditions reduces stress, which allows workers to accomplish more.**”

Appendix A, *Cooperation*, first paragraph

Changed “**a higher level of**” to “**greater**” in the first sentence.

Changed “**Finally,**” to “**Fourth**” in the last sentence.

Appendix A, *Cooperation*, last paragraph

Changed “**The process of moving**” to “**Moving**” in the third sentence.

Changed “**typically begins**” to “**starts**” in the third sentence.

Deleted “**and design specifications**” in the third sentence.

Deleted “, **which in turn can lead to developing new specifications**” in the fourth sentence.

Deleted “**very**” in the last sentence.

Appendix A, *Good People*, first paragraph

Changed “**begin**” to “**start**” in the first sentence.

Changed “**establish**” to “**set up**” in the third bullet point.

Deleted “(e.g., **Total Quality Control programs**)” in the last bullet point.

Appendix A, *A Learning Attitude*, bullet points

Deleted “**very**” in the last bullet point.

Appendix A, *Summary*, bullet points

Deleted “**in order**” in the third sentence.

Appendix A, *A Learning Attitude*, bullet points

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Deleted “**very**” in the last bullet point.

Appendix B, Introduction, first paragraph, first sentence

Changed “**eliminating**” to “**culling**” in the first sentence.

Appendix B, Introduction, second paragraph

Changed “**functioning**” to “**working**” in all (three occurrences).

Appendix B, Introduction, third paragraph

Deleted “**fundamental**” in all (four occurrences).

Appendix B, Ultimate Normative Ends of Life, first paragraph

“Humanists look to human nature to explain human ends. They claim that the **statement, “the ultimate normative end of human life is living a good life,” has meaning. To have meaning, a statement must tell us something more than is contained in the statement alone. In this case, the statement has meaning because it** focuses our attention on what we need to live a good life.”

was changed to:

“Humanists look to human nature to explain human ends. They claim that the ultimate normative end of human life is living a good life. **This simple** statement focuses our attention on what we need to live a good life.”

Appendix B, Ultimate Normative Ends of Life, third paragraph

Changed “**all human beings share certain needs and that these can be separated into two major types**” to “**human needs fall into two groups**” in the first sentence.

Changed “**is the set of**” to “**contains**” in the second sentence.

Appendix B, Ultimate Normative Ends of Life, fourth paragraph

Changed “**type is the set of**” to “**group contains**” in the first sentence.

Changed “**fortunate and virtuous few**” to “**people**” in the third sentence.

Deleted “**of his subjects**” in the fourth sentence.

Changed “**culture**” to “**civilization**” in the fourth sentence.

Deleted “**very**” in the last sentence.

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Appendix B, Ultimate Normative Ends of Life, tenth paragraph

Deleted “, shared beliefs and common means of satisfying our needs” in the first sentence.

Deleted “naturally” in the second sentence.

Appendix B, Ultimate Normative Ends of Life, thirteenth paragraph

Changed “append” to “add” in the third sentence.

Changed “Inevitably” to “Without exception” in the fourth sentence.

Appendix B, Ultimate Normative Ends of Life, fifteenth paragraph

Changed “However” to “But” in the second sentence.

Appendix B, Ultimate Normative Ends of Life, last paragraph

Changed “However, it is” to “It is also” in the third sentence.

Changed “necessary” to “needed” in the third sentence.

Deleted the fifth sentence: “We can easily correct Schweitzer’s mistake by eliminating this assumption.”

Changed “corrected explanation” to “philosophically correct assumption” in the last sentence.

Appendix B, Practical Benefits of Magical Mysticism, first paragraph

Deleted “the development of” in the all (two occurrences).

Deleted “both” in the first sentence.

Changed “period and ethical mysticism making a revival in the Renaissance and becoming” to “periods; ethical mysticism making a revival in the Renaissance; and ethical mysticism becoming” in the last sentence.

Appendix B, Practical Benefits of Magical Mysticism, fifth paragraph

Changed “experience of mystical oneness by means of detachment” to “magical mystical experience” in the first sentence.

Deleted “integrated, coherent, and” in the first sentence.

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Changed “, e.g., Archimedes’s **interrupted bath**” to “. **The classic example is Archimedes’s sudden discovery of the principle of displacement**” in the first sentence.

Appendix B, Practical Benefits of Magical Mysticism, last paragraph

Changed “**increased**” to “**greater**” in the fifth sentence.

Changed “**Thus, a**” to “**A**” in the sixth sentence.

Appendix B, Sacrifice versus Prudence, title

Changed “**versus**” to “**and.**”

Appendix B, Sacrifice and Prudence, first paragraph

Changed “**necessary to achieve**” to “**needed to reach**” in the first sentence.

Appendix B, Sacrifice and Prudence, second paragraph

Changed “**acheiving**” to “**pursuing**” in the first sentence.

Changed “**However, there are very real**” to “**But there are**” in the third sentence.

Appendix B, Sacrifice and Prudence, third paragraph

Changed “**acheiving**” to “**pursuing**” in the first sentence.

Changed “**in order to**” to “**to**” in the first sentence.

Changed “**achieve**” to “**reach**” in all (three occurrences).

Deleted “(e.g., **purgatory**)” in the third sentence.

Deleted “**as well as through the temporal end of mystical union**” in the third sentence.

Appendix B, Sacrifice and Prudence, sixth paragraph

Changed “**in support of**” to “**promoted by**” in the first sentence.

Appendix B, Sacrifice and Prudence, last paragraph

Deleted “**very real**” in the first sentence.

Appendix B, Divine Law, second paragraph

Changed “**eliminate**” to “**lower**” in the first sentence.

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Appendix B, Divine Law, third paragraph

Changed “**minimizes**” to “**lessens**” in the first sentence.

Appendix C, first paragraph

Appended “, **which promotes lucidity.**”

Deleted the second sentence: “**As a result of this experience, people gain self-knowledge.**”

Changed “**from their neighbors begin to seek**” to “**start to pursue**” in the new second sentence.

Appendix C, second paragraph, first sentence

“The immediate effect of releasing this product would be a **decrease** in the demand for some **activities** and an **increase** in the demand for others.”

was changed to:

“The immediate effect of releasing this product would be a **drop** in the demand for some **goods** and a **rise** in the demand for others.”

Appendix C, third paragraph

Deleted “**inherently**” in the first paragraph.

Appendix C, fourth paragraph

Deleted “**rather than outputs**” in the third sentence.

Appendix C, fifth paragraph, first sentence

“Focusing on the strategic issue of how we ought to live requires viewing consumer goods as well as services as means to happiness.”

was changed to:

“From a strategic perspective, all consumer goods and services are means to happiness.”

Appendix C, fifth paragraph, second sentence

Changed “**Hence, the**” to “**The.**”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Appendix C, last paragraph, first sentence

“An accounting truism holds that **policies that seek to maximize what is measured** encourage production of what is measured at the expense of what is not measured.”

was changed to:

“An accounting truism holds that **accounting systems** encourage **the** production of what is measured at the expense of what is not measured.”

Appendix C, last paragraph

Changed “**Ultimately**” to “**In the end**” in the new second sentence.

Changes in Version 2004.11.30

Preface, third paragraph

Changed “**ever better** strategies” to “strategies” in the last sentence.

Acknowledgments, fourth paragraph

Deleted “, **who likely would have directed me to Milton Friedman’s *The Methodology of Positive Economics***” in the second to last sentence.

Acknowledgments, second paragraph

Deleted “**and theology**” in the second sentence.

Acknowledgments, fifth paragraph

Deleted “**the late**” in the first sentence.

Acknowledgments, seventh paragraph

Inserted the following paragraphs:

“The seventh is my entrepreneur father, John Huntington Harris, who succeeded better than most at balancing pragmatism and idealism. He owed his pragmatism to his paternal grandfather, a successful Grinnell, Iowa businessman whose father and grandfather had been Yankee sea captains. He owed his idealism to his mother, who drummed her Reverend John Lothrop inspired ideals into her Grinnell High School history students, including Harry Hopkins, and into her three sons. The most impressed was her middle son, Lathrop, who became a favorite graduate student of

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

University of Chicago political scientist Quincy Wright. Soon after starting his thesis on the coming war (1936?), Lathrop fell into a deep depression and developed a severe case of tuberculosis, which confined him to an asylum until his death (1941). In his eulogy to Lathrop, Grinnell College philosophy professor John Stoops read from Lathrop's treasured typewritten copy of Stephen Vincent Benét's post apocalyptic short story, *The Place of the Gods (By the Waters of Babylon)*: "Truth is a hard deer to hunt. If you eat too much of the truth at once, you may die of the truth. ... Nevertheless, we make a beginning..." His older brother's death by intellectual pursuit taught my father not to take intellectual models too seriously. This lesson was reinforced by his experiences as an Army Air Force officer attached to the Statistical Control and Management Control groups during the Second World War. His common sense approach to problems often conflicted with those of more intellectual "Whiz Kids."

"My father heartily supported my decision to write a book about the role of culture in information age companies: an important part of my job as head of human resources and information systems for our family owned manufacturing firm had been to maintain our small town Iowa corporate culture as we rapidly expanded across the country. Despite his great ability to quickly get to the root of most matters, he could not comprehend my work. He attributed this to my style, particularly to my use of such unfamiliar terms as 'recursionist economics.' The real problem was more a matter of substance than of style. Like his high school and college classmate, George Leland Bach, and his uncle, Wilfred McNeil, my father believed in the primacy of decision rules. He was looking for moral values expressed as decision rules, not for a moral vision expressed as a strategy for learning. He could not grasp that in rapidly changing circumstances what matters most is moral vision, not moral values."

Chapter 2, *Theories produce predictions and explanations.*, last paragraph

Changed "learn" to "do" in the fourth sentence.

Chapter 3, Wealth

Changed "scarce resources" to "things" in the second sentence.

Deleted "those" in the third sentence.

Chapter 6, second paragraph

Deleted "marginalist" in the second sentence.

Chapter 6, third paragraph

Deleted "try to" in the first sentence.

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Changes in Version 2004.12.07

Preface, fourth and fifth paragraphs

“This radical approach to normative economics will be resisted by scholars who believe that it takes a theory to beat a theory. They **owe it to themselves** to consider the nature of decision-making. The foremost task of decision-making is to define our ultimate ends. The intellectual tool that we use to define our ultimate ends ought to address all uncertainty. **No theory can** address the uncertainty of **its** basic assumptions. **A strategy** for learning can address all uncertainty.”

“These scholars also owe it to themselves to consider what happened in the market for production management tools. **Users decided that Toyota’s learning-by-doing production strategy was better than production theories that focused on allocating scarce resources efficiently.** Toyota’s strategy for learning beat the theories for allocating.”

were changed to:

“This radical approach to normative economics will be resisted by scholars who believe that it takes a theory to beat a theory. They **ought** to consider the nature of decision-making: The foremost task of decision-making is to define our ultimate ends. The intellectual tool that we use to define our ultimate ends ought to address all uncertainty. **Unlike theories, which cannot** address the uncertainty of basic assumptions, **strategies** for learning can address all uncertainty. These scholars also **ought** to consider what happened in the market for production management tools: Toyota’s strategy for learning beat the theories for allocating.”

Chapter 1, Mainstream Economics' Blind Spot, third paragraph

Changed “**useful** network” to “network” in the second sentence.

Chapter 2, *Theories produce predictions and explanations.*, second paragraph

Changed “seek” to “**today** seek” in the last sentence.

Chapter 2, second footnote (printed version only)

“True believers in scientific analysis want to restrict science to theories that fit their reductionist research program, which is based on the ideal of understanding everything about a system. To reject empirically testable theories simply because they don’t fit a particular research program is unscientific. Science involves rejecting theories by disproving hypotheses, not by whether they fit a particular research program.”

was restored after having been accidentally replaced by HTML link.

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Chapter 2, sixth footnote (printed version only)

“Maslow, Abraham H., *Motivation and Personality*, (New York: Harper & Row, 1987), 15-31.”

was restored after having been accidentally replaced by HTML link.

Chapter 2, eleventh footnote

Changed “errors **in our theories tends to pull**” to “**theoretical** errors **leads**” in the last sentence.

Chapter 4, Progress, first paragraph

Deleted “**that is useful in progressing toward our ultimate ends**” in the second sentence.

Chapter 4, Fluidity, fifth paragraph

Changed “**decrease**” to “**lower**” in the last sentence.

Appendix A, second footnote (printed version only)

“Ohno, Taiichi, *Toyota Production System*, (Cambridge, Mass.: Productivity Press, 1988), 25-27. Note that American supermarkets inspired Ohno to design a “pull” system.”

was restored after having been accidentally replaced by HTML link.

Changes in Version 2004.12.10

Contents, title (Printed version only.)

Changed “**Table of Contents**” to “Contents.”

Preface, third paragraph

“Over the last quarter century I’ve learned that **my wish for an overarching theory of moral philosophy** was misguided.”

was changed to:

“Over the last quarter century I’ve learned that **this** wish was **foolish**.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

and appended to the second paragraph.

“Rather than strategic theories, we ought to seek *strategies for learning*.”

was appended to the fourth paragraph and changed to:

“Rather than strategic theories, we ought to seek *strategies for learning*.”

Acknowledgments, ninth paragraph, second sentence

Changed “*Soon after starting* his thesis *on* the coming war (1936?)” to “*While working on* his thesis *about* the coming war (1936).”

Acknowledgments, ninth paragraph, second sentence

Changed “*my work*” to “*what I had written about ethics and economics*.”

Chapter 1, Mainstream Economics' Blind Spot, seventh paragraph, second sentence

Changed “to setup” to “to set up” in the last sentence.

Chapter 1, Mainstream Economics' Blind Spot, last paragraph

Changed “workers setup” to “workers set up” in the sixth sentence.

Chapter 2, Moral Science, second paragraph, second sentence

Changed “(our sensations of)” to “our sensations of.”

Chapter 2, Moral Science, fifth paragraph, first sentence

Changed “cultural evolution” to “*normative model* / cultural evolution.”

Changed “cultural evolution” to “*normative model* / cultural evolution.”

Chapter 4, Conclusion, first paragraph, first sentence

“*Many late industrial age intellectuals have preached* that (1) wealth is consumer goods and the capacity to produce consumer goods; (2) the *wealthy* are willing to give up some wealth producing liberty to purchase economic security and (3) socialism would rid us of *what Joseph Schumpeter called* capitalism’s “gales of creative destruction.””

was changed to:

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“Renegade Austrian economist Joseph Schumpeter believed that (1) wealth is consumer goods and the capacity to produce consumer goods; (2) the *wealthy* are willing to give up some liberty to purchase economic security and (3) socialism would rid us of capitalism’s “gales of creative destruction.””

Chapter 5, *Consider the Justice of Interventions*, first paragraph, last sentence

Changed “the cost of enforcing laws but also the costs of learning” to “these costs and benefits but also the costs and benefits of learning.”

Chapter 5, *Consider the Justice of Interventions*, second paragraph

“Policy makers face a choice between prescribing a behavior that helps us pursue happiness or letting us learn that the behavior helps us pursue happiness. If the cost of prescribing the behavior is greater than the cost of not prescribing the behavior, then prescribing then prescribing the behavior is unjust. Conversely, policy makers face a choice between proscribing a behavior that hinders our pursuit of happiness or letting us learn that the behavior hinders our pursuit of happiness. If the cost of proscribing the behavior is greater than the cost of not proscribing the behavior, then proscribing then proscribing the behavior is unjust. *What matters is the justice of interventions, not behaviors.*”

was appended to first paragraph and changed to:

“They choose between prescribing a behavior that helps us pursue happiness and letting us learn that the behavior helps us pursue happiness. Similarly, they choose between proscribing a behavior that hinders our pursuit of happiness and letting us learn that the behavior hinders our pursuit of happiness. *What matters is the justice of interventions, not behaviors.*”

Chapter 6, second paragraph, first sentence

Added “put forth in this work.”

Chapter 6, last paragraph, first sentence

Changed “moral vision put forth in this work” to “managerial strategy.”

Appendix B, Divine Law, second paragraph, last sentence

“In Mathew 7:16, Jesus tells us to judge them by their usefulness: “By their fruits you shall know them.””

was changed to:

“In Mathew 7:15-20, Jesus tells us to judge them by their usefulness:

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“Beware of false prophets, who come to you in sheep's clothing but inwardly are ravenous wolves. You will know them by their fruits. Are grapes gathered from thorns or figs from thistles? So, every sound tree bears good fruit, but the bad tree bears evil fruit. A sound tree cannot bear evil fruit, nor can a bad tree bear good fruit. Every tree that does not bear good fruit is cut down and thrown into the fire. Thus you will know them by their fruits.”¹¹”

“¹¹ The Bible. Revised Standard Edition.”

Changes in Version 2004.12.13

Acknowledgments, eighth paragraph

Changed “groups” to “Groups” in the second to last sentence.

Chapter 2, Moral Science, *Theories are refinements of everyday thinking.*, fourth paragraph

Changed “philosophical theories” to “theories” in the second sentence.

Changed “these theories” to “narratives” in the third sentence.

Changed second Venn diagram accordingly.

Appendix B, first footnote

“Materialists find support for their position in analytical science, science that reduces the world to elemental parts and basic principles. The greatest mystery here is what lies behind and beneath quantum level phenomena. Dualists find support for their position in synthetic science, science that focuses on how structures and phenomena emerge from the interactions of elemental parts and basic principles. Here, the greatest mystery is what lies behind and beyond normal consciousness. Beneath and beyond both great mysteries is an even greater one: does what lies beyond our normal consciousness connect us to what lies beneath quantum level phenomena?”

was changed to:

“Materialists find support for their position in analytical science, science that reduces the world to elemental parts and basic principles. The foremost mystery for analytical science is what lies beneath quantum level phenomena. Dualists find support for their position in synthetic science, science that focuses on how structures and phenomena emerge from the interactions of elemental parts and basic principles. The foremost mystery for synthetic science is what lies behind normal consciousness. Greater than

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

either of these mysteries is the mystery of how what lies beneath quantum level phenomena relates to what lies beyond normal consciousness.”

Changes in Version 2004.12.15

Appendix B, Ultimate Normative Ends of Life, title

Changed “**Ultimate Normative Ends of Life**” to “**Human Needs**.”

Appendix B, Human Needs

Added the subtitle “The Role of Beliefs in Satisfying Needs” after the fourth paragraph.

Added the subtitle “Schweitzer’s Universal Spiritual Need” after the tenth paragraph.

Appendix B, Human Needs, third paragraph, third sentence

“We feel these “becoming needs” when we are becoming fully human.”

was deleted.

Appendix B, Human Needs, fourth paragraph, second sentence

“We feel these “being needs” only after we have become fully human.”

was deleted.

Appendix B, Human Needs, fourth paragraph, last sentence

Changed “: the” to “. The”

Changed “**these mysterious** needs” to “**their spiritual** needs.”

Added the sentence: “In other words, they could have very different spiritual beliefs.”

Appendix B, *The Role of Beliefs in Satisfying Needs*, last paragraph

“Because we learn from others’ experiences as well as our own, we develop cultures. And because our needs form a hierarchy, we can view cultures as aiming to satisfy what members believe to be their highest need.”

was deleted.

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Appendix B, Practical Benefits of Magical Mysticism

Merged first and second paragraphs.

Changed “**events**” to “**historical trends**” in the fourth sentence.

Appendix B, Practical Benefits of Magical Mysticism, new third paragraph

Changed “In **other words**,” to “In **religious terms**,” in the fifth sentence.

Changes in Version 2004.12.17

Acknowledgments, eighth paragraph

Changed “**Yankee** sea captains” to “**merchant** sea captains **from Barnstable, Massachusetts**” in the second sentence.

Chapter 2, second footnote

“True believers in scientific analysis want to restrict science to theories that fit their reductionist research program, which **is** based on the ideal of understanding everything about a system. To reject empirically testable theories simply because they don’t fit a **particular** research program is unscientific. Science involves rejecting theories by disproving hypotheses, not by whether they fit a **particular** research program.”

was changed to:

“True believers in scientific analysis want to restrict science to theories that fit their reductionist research programs, which **are** based on the ideal of understanding everything about a system. To reject empirically testable theories simply because they don’t fit a **reductionist** research program is unscientific. Science involves rejecting theories by disproving hypotheses, not by whether they fit a **reductionist** research program.”

Chapter 2, *Theories are refinements of everyday thinking.*, sixth paragraph

Changed “**. But**” to “**, but**” in the third and fourth sentences.

Chapter 2, Refining Ultimate Ends, fourth paragraph

Changed “deductive **method**” to “deductive **approach**” in the first sentence.

Chapter 4, A Crude Look at the Whole, fourth paragraph

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Changed “become” to “**tend to** become” in the last sentence.

Chapter 6, second paragraph, last sentence

“It also reminds us that wise decision-making requires moral vision.”

was deleted.

Chapter 6, last paragraph

Changed “**shows**” to “**for learning also tells**” in the first sentence.

Afterword, eighth paragraph

Changed “**live** wisely” to “**choose** wisely” in the last sentence.

Appendix B, first footnote

“Materialists find support for their position in analytical science, science that reduces the world to elemental parts and basic principles. The foremost mystery for analytical science is what lies beneath quantum level phenomena. Dualists find support for their position in synthetic science, science that focuses on how structures and phenomena emerge from the interactions of elemental parts and basic principles. The foremost mystery for synthetic science is what lies behind normal consciousness. Greater than either of these mysteries is the mystery of how what lies beneath quantum level phenomena relates to what lies beyond normal consciousness.”

was deleted.

Changes in Version 2004.12.21

Chapter Heading References

Added a chapter heading reference page for Word / Adobe version.

Acknowledgments, third paragraph, first sentence

Added the sentence:

“The immediate economic problem was stagflation, which did not fit neatly into the Hicks model.”

Acknowledgments, fourth paragraph, last two sentences

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“I was too shy and too upset to raise this issue with Gordon. This issue quietly dogged me through business school and on through my business career.”

were deleted.

Acknowledgments, eighth paragraph

Changed “war” to “**world** war” in the fifth sentence.

Acknowledgments, ninth paragraph

“He could not grasp that in **rapidly changing circumstances** what matters most is moral vision, not moral values.”

was changed to:

“He could not grasp that in **information age economies** what matters most is moral vision, not moral values. **The faster we progress, the greater our need to envision progress accurately.**”

Chapter 2, *Theories are refinements of everyday thinking.*, fourth paragraph, last sentence

“This set includes Darwin’s theory of evolution **and** Wegener’s theory of plate tectonics.”

was changed to:

“This set includes Darwin’s theory of evolution, Wegener’s theory of plate tectonics, **and the M-theory of physics.**”

Chapter 2, second footnote

“True believers in scientific analysis want to restrict science to theories that fit their reductionist research programs, which are based on the ideal of understanding everything about a system. To reject empirically testable theories simply because they don’t fit a reductionist research program is unscientific. Science involves rejecting theories by disproving hypotheses, not by whether they fit a reductionist research program.”

was deleted.

Chapter 2, Refining Ultimate Ends, eighth paragraph

Changed “**simplistic explanations of human behavior**” to “**teleonomic theories that focus on a single level of abstraction**” in the sixth sentence.

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Chapter 2, Moral Science, last paragraph, last sentence

“The study of this research program is part of this research program.”

was reduced to a footnote.

Appendix C, title quote

““Science is organized knowledge. Wisdom is organized life.” — *Immanuel Kant*”

was changed to

““Even the free-market economists... have failed, as yet, to come to terms with the new role and inexhaustibility of knowledge.” — *Alvin and Heidi Toffler*.”

¹ Toffler, Alvin and Heidi. “Catch the (Political) Wave.” *Wall Street Journal*. 16 October 1994: A16.”

The footnote is only in the HTML version.

Preface, second paragraph

Changed “Over the last quarter century I’ve learned” to “I have since learned” in the last sentence.

Acknowledgments, second paragraph, last sentence

Changed “do so” to “become a better human being.”

Acknowledgments, third paragraph

Changed “Keynesians of the Hicks ISLM persuasion” to “Neo-Keynesians” in the first sentence.

Changed “Hicks model” to “Hicks ISLM model” in the second sentence.

Changed “Keynesians” to “Neo-Keynesians” in the third sentence.

Acknowledgments, ninth paragraph

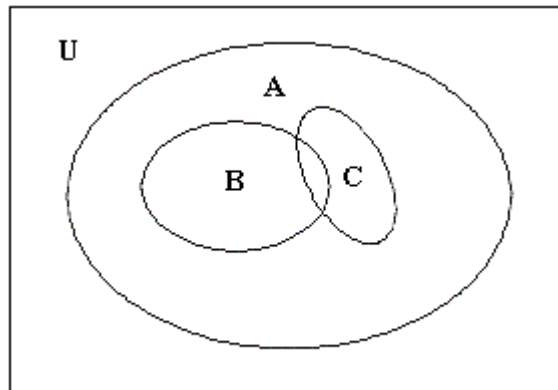
Changed “envision progress accurately” to “envision progress” in the last sentence.

Chapter 2, *Theories are refinements of everyday thinking.*, second through fifth paragraphs

Boundless Pragmatism, An Invariant View of Deciding Well

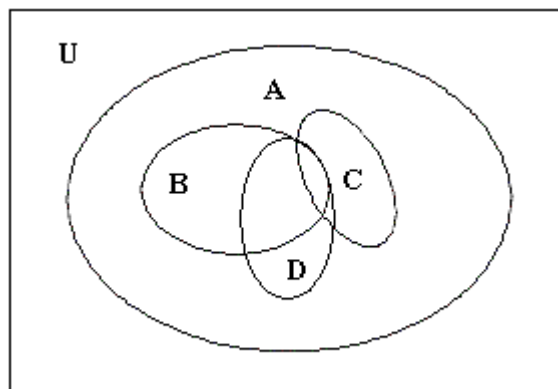
Change Archive for 2004

“We can analyze everyday thinking by classifying worldly knowledge into sets based on the processes that we use to refine it. The most basic process, the process that separates knowing from not knowing something about the world, is making an intuitive connection between our experiences and what we believe we know about the world. This intuitive process defines the universal set of knowledge about the world (U). A good example of worldly knowledge that falls into this set and into no other set is that of an eyewitness who can identify but not describe a suspect’s face.



“We refine worldly knowledge (U) by rejecting all worldly knowledge that we cannot express in words or symbols. What remains are worldly narratives (A). We refine worldly narratives (A) by rejecting those that fail to meet standards for logic and elegance. What remains are philosophical theories (B). **We also refine worldly narratives (A) by rejecting those that fail to meet empirical standards. What remains are scientific theories (C).**

“Most scientists today believe that science involves testing theories that produce predictions. This conception of science falls short of Einstein’s ideal of refined everyday thinking in that it doesn’t test theories that aim at helping us find problems to solve. We can remedy this by testing narratives against empirical standards for finding problems to solve. What remains are scientific theories that explain (D). This set includes Darwin’s theory of evolution, Wegener’s theory of plate tectonics, and the M-theory of physics.



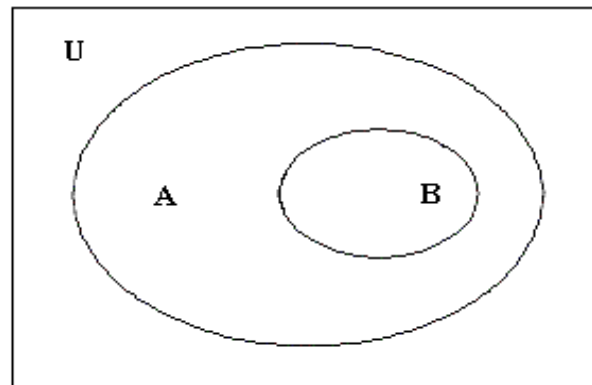
Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“Ideally, a single theory predicts and explains everything about a system ($C \cap D$): theories that explain are simply theories that predict “written backwards.” We test theories that explain by how well they predict. Practically, we test theories by how well they perform their role in decision-making. We test theories that predict (C) by how well they help us predict. We test theories that explain (D) by how well they help us find problems to solve.”

were changed to:

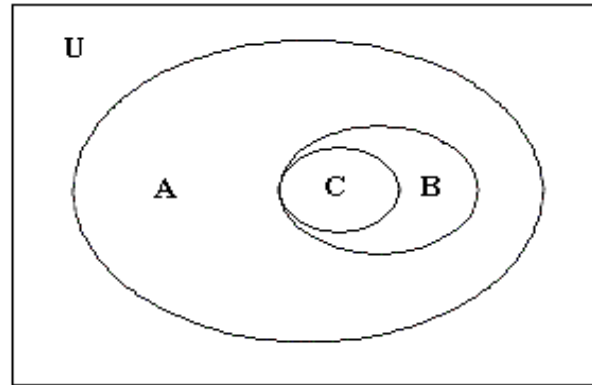
“We can analyze everyday thinking by classifying worldly knowledge into sets based on the processes that we use to refine it. The most basic process, the process that separates knowing from not knowing something about the world, is making an intuitive connection between our experiences and what we believe we know about the world. This intuitive process defines the universal set of knowledge about the world (U). A good example of worldly knowledge that falls into this set and into no other set is that of an eyewitness who can identify but not describe a suspect’s face. We refine worldly knowledge (U) by rejecting all worldly knowledge that we cannot express in words or symbols. What remains are worldly narratives (A). We refine worldly narratives (A) by rejecting those that fail to meet standards for logic and elegance. What remains are philosophical theories (B):



“Idealists believe that science ought to concern the discovery of the truth. A true theory is one that predicts and explains everything about a system. We refine philosophical theories (B) by rejecting those that fail to meet empirical standards for predicting. What remains are scientific theories (C):

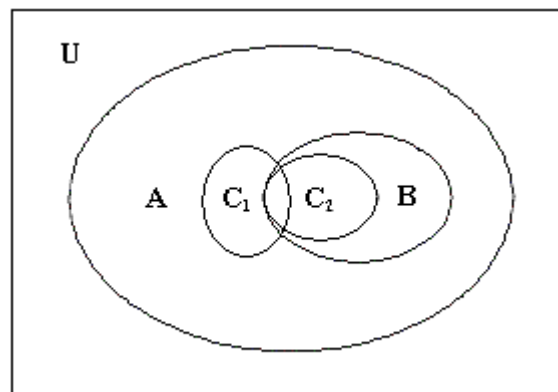
Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004



“This idealistic definition of science tends to limit testing to systems simple enough to be well understood.

“In contrast, pragmatists believe that science ought to concern the never-ending process of discovering useful truth. We test theories by how well they perform their role in everyday thinking. From the managerial perspective put forth in this work, we test theories by how well they perform their role in decision-making. We test theories that predict by how well they help us predict. We test theories that explain by how well they help us find problems to solve. Here, we refine narratives (A) by rejecting those that fail to meet our empirical standards for predicting. What remains are scientific theories that predict (C₁). We refine philosophical theories (B) by rejecting those that fail to meet our empirical standards for helping us find problems to solve. What remains are scientific theories that explain (C₂). This set includes Darwin’s theory of evolution, Wegener’s theory of plate tectonics, and the M-theory of physics:”



Chapter 2, *Theories are refinements of everyday thinking.*, sixth paragraph, first sentence

Changed “**decision-oriented** metamethodology” to “**pragmatic** metamethodology².”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

“² In the pursuit of useful truth, the functional distinction between theories that predict and those that explain is more basic than the methodological distinction between theories that are scientific and those that are not scientific. In philosophical terms, the functional distinction between theories that predict and those that explain is a metamethodological distinction.”

Afterword, first paragraph

Changed “I’ve” to “I have” in the second sentence.

Changed “a good life for all” to “reverence for life” in the third sentence.

Deleted the last sentence: “With philosophers, especially philosophers of science, it is how decision-oriented pragmatism reconciles idealism and pragmatism.”

Afterword, second paragraph

Changed “I’ve” to “I have” in the first sentence.

Merged paragraph with the first paragraph.

Changes in Version 2004.12.27

Chapter 2, Theories are refinements of everyday thinking., fourth paragraph

Changed “by how well” to “by testing how well” in all sentences (four occurrences).

Chapter 2, Refining Our Ultimate Ends, first paragraph

Changed “refining our ultimate ends” to “refining our pursuit of our ultimate ends” in the second sentence.

Appendix B, sixth footnote

Changed “Bhagavad Gita” to “Bhagavad-Gita.”

This changes was also made in the Chapter Heading References section of the print (Word / Adobe) version.

Appendix B, Sacrifice and Prudence, last paragraph

Changed “to link or relink to something greater than ourselves” to “for mystical oneness” in the first sentence.

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Changes in Version 2004.12.30

Preface, first paragraph, first sentence

“*Wealth in the Information Age, The **Economics** of Practical Wisdom* is the book that I wish I had read twenty-six years ago in George Leland Bach’s **normative economics** course, *Business, Government, and the Changing Environment*.”

was changed to:

“**Living well is a matter of deciding wisely. The scientific theories that we use to help us decide wisely naturally fall into two categories. Positive theories describe things as they are. Normative theories prescribe how things ought to be. Wise decision-makers use positive theories to *evaluate* alternatives. They use normative theories to *formulate* alternatives. Positive science is organized knowledge. Normative science is organized life.**

“*Wealth in the Information Age, The **Science** of Practical Wisdom* is the book that I wish I had read twenty-six years ago in George Leland Bach’s course, *Business, Government, and the Changing Environment*.”

Chapter 1, The Strategy, first paragraph, last sentence

“From the managerial perspective, the universal problem we face is one of how we intelligent beings choose to progress toward our ultimate ends. ”

was appended to the second paragraph. In effect, the paragraph break was moved forward one sentence.

Chapter 2, Moral Science, fifth paragraph

Changed “**a brilliant, but partial**” to “**an insightful**” in the first sentence.

Chapter 5, International Cooperation, footnote

Re-added the sentence:

“It took the bloodiest war in United States history to erase that stain from the Constitution.”

Changes in Version 2004.12.31

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Title

Changed “The **Economics** of Practical Wisdom” to “The **Science** of Practical Wisdom.”

Preface, first paragraph, first sentence

“*Wealth in the Information Age*, The **Economics** of Practical Wisdom is the book that I wish I had read twenty-six years ago **in** George Leland Bach’s **normative economics** course, *Business, Government, and the Changing Environment*.”

was changed to:

“*Wealth in the Information Age*, The **Science** of Practical Wisdom is the book that I wish I had read twenty-six years ago **for** George Leland Bach’s course, *Business, Government, and the Changing Environment*.”

Preface, third paragraph

Changed “**approach to normative economics**” to “**idea**” in the first sentence.

Changed “They ought to consider the nature of decision-making: The foremost task of decision-making is to define our ultimate ends.” to “They ought to consider the foremost task of decision-making, which is defining our ultimate ends.” in the third sentence.

Changed “:” to “.” in the last sentence.

Chapter 2, *Theories are refinements of everyday thinking.*, end

Added the paragraph:

“Some idealists will dismiss this pragmatic definition of science for not being positive, for not describing the world as it is. They ought to consider the nature of scientific research programs. Scientific research programs are positive in their ends, normative in their means, and potentially religious in their effect on researchers. The ever-evolving process of discovering, testing, and applying useful knowledge is a scientific research program of, by, and for all intelligent life.”

Chapter 2, Refining Ultimate Ends, fourth paragraph.

Changed “**consume**” back to “**live**” in the last sentence.

Chapter 2, Moral Science, title

Changed “**Moral Science**” to “**Economic Science**.”

Boundless Pragmatism, An Invariant View of Deciding Well

Change Archive for 2004

Chapter 2, Economic Science, fifth paragraph

Changed “**an insightful**” to “**a pragmatic**” in the first sentence.

Chapter 2, Economic Science, last two paragraphs

“A more complete solution is to define economic science as the study of the ever-evolving process of discovering, testing, and applying knowledge useful in living good lives. Until all of us act wisely, **managing this study well requires** distinguishing between intellectual tools for helping us follow our teleonomic programming and intellectual tools for helping us **to** predict how others will follow their teleonomic programming. It’s just good common sense.

“**Many scientists and philosophers of science will dismiss this definition of economic science for not being positive, for not describing the world as it is. They ought to consider the nature of scientific research programs. Scientific research programs are positive in their ends, normative in their means, and potentially religious in their effect on researchers. The ever-evolving process of discovering, testing, and applying knowledge useful in living good lives is a scientific research program of, by, and for all intelligent life.**”

“**The study of this research program is part of this research program.**”

were changed to:

“A more complete **pragmatic** solution is to define economic science as the study of the ever-evolving process of discovering, testing, and applying knowledge useful in living good lives. Until all of us act wisely, **we ought to** distinguish between intellectual tools for helping us follow our teleonomic programming and intellectual tools for helping us predict how others will follow their teleonomic programming. It’s just good common sense.”

Chapter 4, Avalanche Catastrophes, fourth paragraph

Deleted “falling on a plane” in the last sentence.

Appendix B, Practical Benefits of Magical Mysticism, fifth paragraph

Changed “**the three** stooges **throw** away a priceless vase because **they**” to “**a** stooge **throws** away a priceless vase because **he**” in the fourth sentence.