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Changes in Version 2014.01.03

Preface, fifth paragraph

Changed "solution to" to "way to address" in the second sentence.

Chapter 1, introduction, last paragraph

"Deciding ever more wisely calls for distinguishing between concepts and terms, between meanings and containers for meaning. This book uses the convention of surrounding concepts with double quotation marks and terms with single quotation marks. For example, the term 'up' may denote either the concept of "north," as when we use it to describe a direction on a conventional two-dimensional map hanging on a wall, or the concept of "away from the center," as when we use it to describe a direction on a three-dimensional globe. The meaning of the term 'up' depends on the context in which we use it. This book also uses the convention of highlighting the first instance of terms and phrases with unfamiliar meanings. Examples of this include 'concepts' and 'knowledge resource' in the first two paragraphs of this chapter."

was moved to the end of the Preface and changed to:

"Once we have learned to view the world in one way, it can be hard for us to view it in another. To make it a bit easier, I put material not necessary to the main argument in footnotes. Both to help readers whose native language is not English and to slow down speed readers, I used commas liberally. I italicized the first instance of terms and phrases with unfamiliar meanings. I also distinguished between concepts (meanings) and terms (containers for meanings) by surrounding concepts with double quotation marks and terms with single quotation marks. For example, the term 'up' may denote either the concept of "north," as when we use it to describe a direction on a conventional two-dimensional map hanging on a wall, or the concept of "away from the center," as when we use it to describe a direction on a three-dimensional globe. The meaning of 'up' depends on the context in which we use it."

Chapter 1, Choosing Frames Well, last paragraph

Changed "address it" to "address it well" in the last sentence.

Chapter 1, Seeing Through Apparent Miracles, last paragraph

Changed "We" to "To wit, we" in the fifth sentence.

Chapter 1, Seeing Through Apparent Miracles, last paragraph, last sentence

"This difference of opinion raises the issue of boundless models of deciding well."

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was deleted.

Chapter 3, Contemplating the Way Forward, second paragraph

Changed "result of one cycle through these steps" to "results of one cycle through the steps" in the second sentence.

Chapter 3, A Boundlessly Pragmatic Interpretation of Quantum Mechanics, fourth paragraph, footnote

"s This interpretation of quantum mechanics contradicts physicist John Bell's claim that if hidden variables that explain entanglement exist, they are not local. Decades of experiments have failed to disprove this claim."

was changed to:

"s This interpretation of quantum mechanics contradicts Bell's theorem, which states that local variables cannot explain everything that quantum mechanics predicts. Decades of experiments have failed to disprove this theorem. Note that from the boundless view, we ought to act as if free will exists: If we choose to believe that free will exists, we ought to seek to disprove that free will exists, which calls for us to act as if free will exists. On the other hand, if we choose to believe that free will does not exist, we ought to seek to disprove that free will does not exist, which calls for us to act as if free will does not exist. The former is the more beautiful problem to solve. It rings truer with all that we currently believe we know about deciding well."

Chapter 3, A Boundlessly Pragmatic Interpretation of Quantum Mechanics, seventh paragraph, last footnote, last four sentences

"Implicit in this model is the belief that we ought to act as if free will exists. If we choose to believe that free will exists, we ought to seek to disprove that free will exists, which calls for us to act as if free will exists. On the other hand, if we choose to believe that free will does not exist, we ought to seek to disprove that free will does not exist, which calls for us to act as if free will does not exist. The former is the more beautiful problem to solve. It rings truer with all that we currently believe we know about deciding well."

were deleted.

Chapter 4, Refining Problems to Solve, first paragraph

Changed "deciding" to "finding problems" in the last sentence.

Chapter 8, sixth paragraph

Changed "holding the truth that it is best to be self-evident" to "acting as if it is best" in the last sentence.

Change Archive for 2014

Chapter 8, eighth paragraph

Changed "are" to "is" in the last sentence.

Appendix C, On the Philosophy Wall, last paragraph

Italicized "Vitruvian Man."

Appendix C, *Imagining the Designer*, second paragraph

Changed "plan" to "strategy" in the last sentence.

Appendix C, *Imagining the Designer*, last paragraph

Changed "this magnum opus" to "creating this magnum opus" in the last sentence.

Changes in Version 2014.01.04

Chapter 1, Choosing Frames, Well, first paragraph, last two sentences

"This concept is not meant to imply the existence of non-human people. Speculation about the existence of such beings is beyond the scope of this work."

were changed to:

"The boundless approach to deciding well emerges from a combination of physics and intelligence, hence applies to all embodied intelligent beings. Speculation about the existence of non-human people is beyond the scope of this work."

Chapter 8, second paragraph, last sentence

Enclosed the last clause in parentheses rather than offsetting it with a comma.

Chapter 8, third paragraph, last sentence

Enclosed the last clause in parentheses rather than offsetting it with a comma.

Chapter 8, fourth paragraph

Changed "boundless pragmatism" to "boundless pragmatism (after the synthesis of modern dialectics and instrumental analysis)" in the last sentence.

Appendix A, introduction, third to last paragraph

Change Archive for 2014

Changed "apparent polygon with a very large number of sides may actually be a circle.4" to "object may be a circle4 rather than a polygon with a large number of sides." in the second sentence.

Changed "circular objects" to "circles" in the third sentence.

Appendix A, introduction, last paragraph

Changed "a different family of" to "two" in the first sentence.

Appendix A, The Big Picture, last paragraph

Removed italics from the first sentence:

"Now imagine that instead of three objects in the first row, the problem on the billboard had only the first two objects."

Appendix C, introduction, first paragraph

Changed "Beauty" to "what we here call Beauty" in the third sentence.

Appendix C, The Forgotten Role of Octagons, second paragraph

Changed "sets or keeps" to "sets" in all (2 occurrences).

Appendix C, Imagining the Designer, fourth paragraph

Changed "gold field" to "gold field, perhaps influenced by the recently discovered grotesque figures surrounding the Trajan baths" in the seventh sentence.

Changes in Version 2014.01.11

Chapter 8, fifth paragraph, footnote

Changed "proving" to "formally proving" in the fourth sentence.

Appendix A, introduction, tenth paragraph, footnote, last three sentences

"If we approach this problem mathematically, we must create a new class of number (to hold infinities as well as positive integers) and a method for subtracting (or decrementing by one) for this new class. If we approach this problem geometrically, we must expand our internal language to handle circles. In this analysis, we take the geometric approach."

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were changed to:

"Here, we take the geometric approach."

Appendix C, On the Philosophy Wall, third paragraph

Deleted "(the reason of geometry, mathematics, and logic)" from the first sentence.

Appendix C, *Imagining the Designer*, third paragraph

Changed "rationally" to "rationally within multiple frames, much less rationally in a single frame" in the last sentence.

Added the Afterword:

Afterword

"Horatio: 'O day and night, but this is wondrous strange.'

"Hamlet: 'And therefore as a stranger give it welcome. There are more things in heaven and earth, Horatio, than are dreamt of in your philosophy." — William Shakespeare

From the boundless view, deciding well calls for the serenity to accept the things we cannot change, the courage to change the things we can, and the wisdom to know the difference. Should our plan to change the world call for us to challenge the Zeitgeist, this wisdom means the difference between the fates of Charles Darwin, who changed the whole of biology, and of Kurt Gödel, who failed to change the whole of science.

The strategy for learning I offer says little about governing our minds well. The part of me that seeks Wholeness tells me that it would be a conceit to publish such a dangerously incomplete strategy. The part of me that seeks the Truth tells me that it would be a conceit to say more. I offer the strategy as it is, but in a way that allows me to add to it easily. I also offer three maxims from the Delphic temple of Apollo: $\gamma v \tilde{\omega} \theta \iota \sigma \epsilon \alpha v \tau \acute{o} v$ ("know thyself"), $m \bar{e} d \acute{e} n \acute{e} a n$ ("nothing in excess"), and $egg \acute{v} a p \acute{a} r a d' a t \bar{e}$ ("make a pledge and mischief is nigh). As Marsyas learned too late, pledges may prove too dangerous to fulfill alone.

¹ *Hamlet*, Act 1, Scene 5.

Changes in Version 2014.01.15

Change Archive for 2014

Afterword, last paragraph

Changed "was" to "is" in the third sentence.

Preface, first paragraph

Changed "University" to "son of Grinnell banker and University" in the first sentence.

Chapter 1, Temporal and Normative Models, title

Changed title to "Temporal and Normative Frames."

Chapter 1, The EOO/RTS Example, title

Advanced title up to paragraphs and changed it to "Temporal and Normative Models."

Chapter 1, Boundless Models for Deciding Well, third paragraph, footnote

Changed "our models" to "our models for helping us find problems to solve" in the last sentence.

Chapter 1, Boundless Models for Deciding Well, fourth paragraph, footnote, first seven sentences

"We may think of these boundless ends as values. A major difference between bounded and boundless values is their source. From a modern view of deciding well, people base their values on what they currently know. The modern concept of deciding well does not include learning ever more about values. People must look beyond the problem at hand to find sources for their values. These outside sources include such things as theistic texts, political ideologies, and moral philosophies. In contrast, from the boundless view of deciding well, we base our values on what we need to know in order to pursue Wisdom."

were changed to:

"From the boundless view of deciding well, we base our values on what we need to know in order to pursue Wisdom."

Chapter 1, Ever More Complete Multiple-Frame Models, third paragraph, footnote

Changed "should" to "would" in the second sentence.

Changed "should" to "would" in the third sentence.

Changed "should" to "owe it to ourselves (ought) to" in the last sentence.

Change Archive for 2014

Chapter 3, A Boundlessly Pragmatic Interpretation of Quantum Mechanics, seventh paragraph, last footnote, first sentence

"Decision-tree models consist of decision events, events that change the course of events that the decider controls, and uncertain events, events that change the course of events that the decider does not control."

was changed to:

"Decision-tree models consist of events that change the course of events that the decider controls (decision events) and events that change the course of events that the decider does not control (uncertain events)."

Chapter 4, Self-Similarity, first paragraph, footnote

Changed "In other words" to "In short" in the second to last sentence.

Chapter 4, Recursivity, first paragraph, footnote

Changed "can" to "may" in the second sentence.

Appendix A, The Big Picture, last block quote

Changed "this boundless end" to "this end" in the third sentence.

Appendix A, The Big Picture, last paragraph

Italicized the first sentence (again):

"Now imagine that instead of three objects in the first row, the problem on the billboard had only the first two objects."

Appendix C, *The Role of Julius II*, last paragraph, first sentence:

"Reinforcing the claim that the authors would have Julius II become an ever better jurist rather than ever more Christlike is the scene in the corner rectangle between the circles representing poetry and theology:"

was changed to:

"Reinforcing the claim that the authors would have Julius II become an ever better jurist rather than ever more Christlike is the figure of Pope Gregory I on the theology wall (to the far left in the altar image above). Rather than reading the book he holds, Gregory I, whose visage is that of a beardless Julius II, looks into the space between the Holy Ghost and the monstrance on the altar.

Change Archive for 2014

"Further reinforcing this claim is the scene in the corner rectangle between the circles representing poetry and theology:"

Changes in Version 2014.01.17

Acknowledgments, second paragraph

Changed "two" to "three" in the first sentence.

Acknowledgments, second paragraph, last two sentences

"Both knew that the way forward that can be told is not the best way forward. Accordingly, they put more stock in character and culture than most of their contemporaries did."

were changed to:

"George Leland Bach taught a course in ethics that became the model for the American Assembly of Collegiate Schools of Business. All three knew that the way forward that can be told is not the best way forward."

Acknowledgments, last paragraph

Changed "independent of beliefs and circumstances" to "universal" in the last sentence.

Preface, first paragraph

Changed "son of Grinnell banker and University" back to "University" in the first sentence.

Chapter 1, Seeing Through Apparent Miracles, last paragraph

Changed "view" to "boundless view" in the fourth sentence.

Chapter 1, Boundless Models of Deciding Well, first paragraph

Changed "swimming" to "reasoning" in the last sentence.

Chapter 4, Modern Policy Mistakes, third paragraph, first footnote, first three sentences

"As the amount of turbulence rises, we spend more resources responding to it, which leaves us less resources for deciding well in ways that create stress. Conversely, as the amount of turbulence falls, we spend less resources responding to it, which leaves us more resources for new programs, which tend to create turbulence."

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were changed to:

"As the amount of turbulence rises, we spend more resources responding to turbulence, which leaves us less resources for deciding well in ways that create stress. Conversely, as the amount of turbulence falls, we spend less resources responding to turbulence, which leaves us more resources for deciding well that create stress."

Chapter 5, introduction, third paragraph, footnote

Changed "moral authority of the holders" to "perceived morality" in the last sentence.

Chapter 5, Good Policies, first paragraph, footnote, last sentence

"For more about the distinction between inventing and discovering such means, see Appendix A (The Science of Forms)."

was deleted.

Chapter 8, fourth paragraph

Changed "modern dialectics" to "dialectics" in the last sentence.

Chapter 8, fifth paragraph, second footnote, first five sentences

"We can imagine finessing this problem of never knowing the Truth by using a programming technique that searches the set of all possible algorithms for superior algorithms by selecting and "breeding" algorithms based on their fitness in pursuing normative ends. We cannot use this technique with the logical approach. We can use it with the modern dialectical approach to pursue a single normative end. We can also use it with the boundlessly pragmatic approach to pursue the boundless end of deciding well, which calls for using it to pursue boundless factors of deciding well. Although the boundlessly pragmatic approach may appear to be the best for pursuing the Truth, formally proving that it is the best still calls for knowing the Truth."

were changed to:

"We can imagine finessing this problem of never knowing the Truth by using a programming technique that searches the set of all possible algorithms for superior algorithms by "breeding" algorithms selected by their fitness in pursuing normative ends. We cannot use this technique with the logical approach. We can use it with the other two approaches."

Afterword, first paragraph

Changed "From the boundless view, deciding" to "Deciding" in the first sentence.

Afterword, last paragraph

Change Archive for 2014

Changed "strategy as it is, but" to "less complete strategy" in the fourth sentence.

Appendix C, introduction, sixth paragraph, second through fourth sentences

"For example, we might represent regular polygons as regular polygons and irregular polygons as irregular polygons. A full representation of polygons calls for including their number of sides. Using this scheme, we might represent regular polygons as collections consisting of the character R and an integer for the number of sides and irregular polygons as collections consisting of the character I and an integer for the number of sides."

were changed to:

"For example, we might represent the regular polygons as the character R and an integer for the number of sides and the irregular polygons as the character I and an integer for the number of sides."

Appendix B, Temporal Details, first paragraph, footnote

Changed "It" to "This strategy" in the last sentence.

Appendix C, On the Philosophy Wall, last paragraph, fourth and fifth sentences

"This striking clash of perspectives reminds us of the problem of representing higher-dimensional objects, of Flatlander A. Square's up-but-not-north problem. From all of these cues, it is easy to imagine Heraclitus inspired to replace each of the squares in the form beneath his feet with the more complex form slightly above his head, thereby creating a truncated version of the symbol of refining the reason of Plato and Aristotle shown above:"

were changed to:

"From these reminders of the problem of representing higher-dimensional objects, it is easy for us to imagine Heraclitus inspired to replace each of the squares in the form beneath his feet with the more complex form slightly above his head, thereby creating a truncated version of the symbol of refining the reason of Plato and Aristotle shown above:"

Appendix C, On the Philosophy Wall, last paragraph, footnote

Changed "this symbol" to "this recursive symbol" in the third sentence.

Appendix C, A Boundless View of the Whole, last paragraph, last two sentences

"On the left, church doctors study books or gesture toward the monstrance on the altar, which represents the divine role of the church on earth as currently understood by these church doctors. On the right, other church doctors gaze or gesture toward Holy Wisdom."

were changed to:

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"On the left, the church doctors closest to the altar study a text and gesture toward the monstrance on the altar, which represents the divine role of the church on earth as currently understood. On the right, their counterparts gaze or gesture toward Holy Wisdom."

Appendix C, The Role of Julius II, second paragraph, footnote

Changed "the current state of the world in which we live rather than the world in which we live" to "the world as we are able to rationalize it rather than the dimensionally richer world in which we actually live" in the second sentence.

Deleted the last sentence: "To begin to understand the effects of the misuse of such views, consider the effects of assuming that the distribution of changes in financial asset prices are normally distributed, an all too common assumption based on the belief that there is no direction to cultural evolution."

Appendix C, Imagining the Designer, last paragraph

"To complete the temporal parts of the ceiling, you filled the four hourglass-shaped spaces with eight classical images that represent earth, air, wind, and water. You then filled the twelve distorted spaces between the circles, squares, and arches with the heraldry of Julius II. You metaphorically cemented these twenty symbols in place with an unknotted version of the Gordian knot pattern."

was changed to:

"To complete the temporal parts of the ceiling, you filled the four hourglass-shaped spaces with eight classical images that represent the four tangible elements and filled the twelve distorted spaces between the circles, squares, and arches with the heraldry of Julius II. You then metaphorically cemented these twenty symbols in place with an unknotted version of the Gordian knot pattern."

Changes in Version 2014.01.24

Chapter 1, Temporal and Normative Models, fifth paragraph

Changed "price" back to "measure the value of" in the sixth sentence.

Chapter 1, Seeing Through Apparent Miracles, last paragraph

Changed "To wit, how" to "How" in the third sentence.

Changed "To wit, we" to "We" in the last sentence.

Chapter 1, Ever More Complete Multiple-Frame Models, fourth paragraph

Change Archive for 2014

Changed "problems" to "temporal problems" in the second sentence.

Changed "problem" to "temporal problem" in the third sentence.

Chapter 2, all

Changed "normative view of boundless decision science" back to "boundless view" in all (7 occurrences).

Chapter 2, introduction, both paragraphs

Changed "normative" back to "boundless" in all (4 occurrences).

Chapter 3, Public Order, last paragraph

Changed "normative concept" to "concept" in the second sentence.

Changed "temporally-bounded normative concept" to "concept" in the third sentence.

Afterword, first paragraph

Changed "Zeitgeist" to "Zeitgeist (spirit/ghost of the times)" in the last sentence.

Changed "Charles Darwin, who changed the whole of biology, and of Kurt Gödel, who failed to change the whole of science" to "Charles Darwin and Kurt Gödel" in the last sentence.

Afterword, last paragraph

Changed "The strategy for learning I offer" to "I offer a strategy for deciding well that" in the first sentence.

Replaced Greek maxims with English translations.

Inserted paragraph break after the third sentence.

Appendix A, Indispensable Forms, title

Changed title to "Ideal Forms."

Appendix A, Ideal Forms, first paragraph

Changed "tools" to "forms (patterns)" in the first sentence.

Changed "indispensable to" to "the best forms for" in the second sentence.

Changed "indispensable" to "best" in all (2 occurrences).

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Changed "tools" to "forms" in all (2 occurrences).

Appendix A, Ideal Forms, second paragraph

Changed "forms (patterns)" to "forms" and "indispensable to" to "the best forms for pursuing the boundless end of" in the first sentence.

Deleted the last sentence: "We presume that the most useful tools are the most likely to be indispensable."

Appendix A, Ideal Forms, last paragraph

Changed "all forms that are indispensable to" to "forms that are best for" in the last sentence.

Appendix C, On the Philosophy Wall, third paragraph, footnote

Promoted the first two sentences:

"Raphael completed the philosophy wall without the figure of Heraclitus. Some art historians believe that he added it as a symbol of inspired genius in response to seeing Michelangelo's figure of Jeremiah on the ceiling of the Sistine Chapel."

to a new footnote after the third sentence and changed to:

"6 There is undeniable evidence that Raphael did not include the figure of Heraclitus in his plans for the philosophy wall. Most art historians believe that he added it after completing the wall. Some believe that he intended it to be a symbol of inspired genius after seeing Michelangelo's Jeremiah on the ceiling of the Sistine Chapel."

Added the following sentence to the end:

"This is consistent with the belief that the authors of this room recognized that there were better ways of telling the story that they wanted to tell."

Changes in Version 2014.01.28

Chapter 1, Seeing Through Apparent Miracles, last paragraph

Changed "learn" to "can learn ever more about what we need" in the last sentence.

Chapter 1, Steps for Building Multiple-Frame Models, title

Changed "Multiple-Frame Models" to "Models of Deciding Well" in the title.

Change Archive for 2014

Chapter 1, Steps for Building Models of Deciding Well, first paragraph, footnote

"15 More accurately, this step concerns reconciling these frames as best as we can given our current ignorance of not only the current state of the world but also all possible future states of the world."

was promoted to the body of the work and changed to:

"More accurately, this step concerns reconciling these frames as best as we can, given our current ignorance of not only the current state of the world but also all possible future states of the world."

Chapter 1, Ever More Complete Multiple-Frame Models, title

Changed "Multiple-Frame Models" to "Models of Deciding Well" in the title.

Chapter 4, Self-Similarity, first paragraph, footnote

Changed "short" back to "other words" in the second to last sentence.

Chapter 8, fourth paragraph

Added the following footnote:

"2 Modern readers should not confuse this boundless synthesis with the bounded synthesis of John Dewey. Dewey was greatly influenced by Edward Bellamy's utopian novel *Looking Backward*, 2000 to 1987, which advocated nationalizing all industry and drafting all citizens of the United States into an "industrial army." To build political support for this dream, Edward's cousin, Francis Bellamy, organized a program to compel all children in the United States to pledge allegiance to the federal government at the start of each school day: "I pledge allegiance to my flag and to the Republic for which it stands, one nation indivisible, with liberty and justice for all." Far wiser would have been a pledge based on the boundless civil faith of Benjamin Franklin: "I pledge allegiance to my flag and to the principles for which it stands, one people, pursuing Wisdom, with liberty and justice for all.""

Chapter 5, fifth paragraph

Changed "forms" to "concepts" in the first sentence.

Chapter 5, fifth paragraph, fourth sentence

"If we define the best form of reason as the reason of the first program that will cause one or more of these robots to halt, then we will never be able to prove formally which form of reason is best."

was changed to:

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"If we define the best concept as that of the first robot to halt, then we will never be able to prove formally which of these concepts is best."

Chapter 8, fifth paragraph, last footnote, second and third sentences

"We cannot use this technique with the logical approach. We can use it with the other two approaches."

were deleted.

Chapter 8, last paragraph, first footnote

Changed "reason" to "governing our minds well" in the last sentence.

Chapter 8, last paragraph, end

Added the following footnote:

"⁷ A strategy for deciding well that does not describe governing our minds well is dangerously incomplete. Instead of such a description, I offer three maxims from the Delphic temple of Apollo: "know thyself," "nothing in excess," and "make a pledge and mischief is nigh." Deciding well calls for the serenity to accept the things we cannot change, the courage to change the things we can, and the wisdom to know the difference."

Afterword

Deleted the Afterword.

Appendix B, Less is More, first paragraph

Changed "aim at" to "are tools for" in the first sentence.

Changed "aims at" to "is a tool for" in the second sentence.

Appendix C, On the Philosophy Wall, third paragraph, last footnote

Changed "recursive symbol" to "symbol" in the first sentence.

Deleted the third sentence: "For example, replacing the papal symbol and putti above the oculus in the ceiling would have harmed the relation between the ceiling and the other three walls."

Appendix C, A Boundless View of the Whole, second paragraph, footnote

Changed "were a representation of" to "represented" in the first sentence.

Change Archive for 2014

Deleted the last sentence: "From the boundless view, the source of the problem with the modern rational mindset concerns pursuing the truth about the world as we are able to rationalize it rather than the dimensionally richer world in which we actually live."

was deleted.

Appendix C, The Role of Julius II, first paragraph

Changed "aim at promoting" to "promote" in the sixth sentence.

Changed "aim at discovering" to "discover" in the last sentence.

Changes in Version 2014.01.31

Chapter 1, Steps for Building Models of Deciding Well, first paragraph, last two sentences

"The last is reconciling the model as best as we can. More accurately, this step concerns reconciling these frames as best as we can given our current ignorance of not only the current state of the world but also all possible future states of the world."

were changed to:

"The last is reconciling the frames of the model as best as we can given our current ignorance of not only the current state of the world but also all possible future states of the world."

Chapter 8, last paragraph, first footnote, first five sentences

"In likening governing our minds well to governing ourselves well, Plato also provided us with a bounded view of governing our minds well: In an ideal mind, all parts work together for the good of the person. In an ideal state, all people work together for the good of the state. As we have seen, we ought to take the boundless view: In the ideal mind, all parts work together in deciding well. In the ideal state, all people work together in deciding well."

were changed to:

"In likening governing our minds well to governing ourselves well, Plato also provided us with a bounded view of governing our minds well: In an ideal state all people work together for the good of the state. Similarly, in an ideal mind all parts work together for the good of the person. As we have seen, we ought to take the boundless view: In the ideal state all people work together in deciding well. Similarly, in the ideal mind all parts work together in deciding well."

Appendix A, introduction, second to last paragraph, footnote

Change Archive for 2014

Changed "algebriacally" to "arithmetically" in the last sentence.

Appendix C, Imagining the Designer, first paragraph

Changed "superrational forms, forms for pursuing Beauty" to "forms to pursue Beauty" in the last sentence.

Appendix C, Imagining the Designer, third paragraphs

"Your first step in depicting this strategy was choosing a symbol for the ideal frame for deciding well. You recognized that such a frame must be rational on the transcendent level: the transcendent ends of philosophy, poetry, theology, and jurisprudence are all facets of Holy Wisdom. It must also be rational on the normative level: pursuing any one of these normative ends calls for pursuing all of them. Further, you recognized that we lack the knowledge to pursue these ends rationally within multiple frames, much less rationally within a single frame."

was appended to the end of the second paragraph and changed to:

"To do so well, you needed to show the rational relations between facets of Holy Wisdom and the rational relations between the pursuits of these boundless ends. You also needed to show that we lack the knowledge to pursue these boundless ends rationally."

Appendix C, Imagining the Designer, new third paragraph

"During one of your insightful reveries you imagined that an octagonal oculus captured the essence of transcendent and normative rationality. You also imagined that the symbol of the ideal frame for deciding well must include not only this oculus but also the structure that supports it. Mapping the normative parts of this ideal structure onto the imperfect ceiling of the library would greatly distort the temporal parts. The resulting asymmetries would symbolize our ignorance of how best to decide well. This insight struck you with the force of divine revelation. Accordingly, you chose to decorate this structure with repeating patterns from your early reveries. For the octagon, circles, squares, and tops of the arches, you used surreal forms on a gold field, perhaps influenced by the recently discovered grotesque figures from Nero's palace. For the parts of the arches that frame the wall frescoes, you used a gold geometric form on an azure field. In the gap between the surreal and geometric bands on the two shorter walls, you used a gold floral pattern on an azure field."

"10 You also chose the image of what appears to be a golden lotus blossom in a roundel to join the parts that form this ideal structure. Arguably, these roundels are symbols of divinely-inspired beliefs. For you, the question of whether such beliefs exist was never an issue. From the boundless view, the question of whether they exist is a minor issue. The major issue is whether our beliefs help us decide well."

was changed to:

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"During one of your reveries you imagined that an octagonal oculus captured the essence of the relation between the transcendental and normative frames of deciding well. You also imagined that this symbol of endless striving must be at the center of the picture of deciding well. Further, mapping this picture onto the imperfect ceiling would distort its temporal parts. The resulting asymmetries would symbolize our ignorance of how best to decide well.

"This insight struck you with the force of divine revelation. Accordingly, you chose to decorate this structure with repeating patterns from your early reveries. For the octagon, circles, squares, and tops of the arches, you used surreal forms on a gold field, perhaps influenced by the recently discovered grotesque figures from Nero's palace. For the parts of the arches that frame the wall frescoes, you used a gold geometric form on an azure field. In the gap between the surreal and geometric bands on the two shorter walls, you used a gold floral pattern on an azure field. You also chose the image of what appears to be a golden lotus blossom in a roundel to join the parts that form this ideal structure. Arguably, these roundels are symbols of religious enlightenment. For you, the question of whether such enlightenment exists was never an issue.¹⁰"

"10 From the boundless view, the question of whether religious enlightenment exists is a minor issue. The major issue is whether our beliefs help us decide well."

Changes in Version 2014.02.04

Acknowledgments, second paragraph

Changed "course" to "Socratic course" in the second to last sentence.

Preface, sixth paragraph

Changed "wisdom" to "transcendental wisdom" in the third sentence.

Preface, seventh paragraph

Changed "self-referential, self-similar, multiple-frame" to "universal" in the first sentence.

Chapter 1, Boundless Models of Deciding Well, first paragraph

Changed "playing basketball" to "running" in the last sentence.

Chapter 1, Boundless Models of Deciding Well, third paragraph, footnote

"10 More accurately, we may think of this normative end as a *reasonably* boundless end: encountering unimagined problems ("unknown unknowns") provides us with opportunities to make major improvements to our models for helping us find problems to solve."

Change Archive for 2014

was moved to the end of the paragraph and changed to:

"10 We may think of *reasonableness* as the philosophical analogue of the mathematical concept of computability. So conceived, the relations between the members of the set of boundless factors of deciding well are reasonable in that we can imagine how their ideal (transcendental) forms relate to each other logically. As we shall see, this reasonableness emerges from our latent tendency to pursue the boundless end of deciding well."

Chapter 1, Boundless Models of Deciding Well, last paragraph, footnote, last two sentences

"Note that the change in case from the third person to the first person is not a mistake. We cannot separate the boundless problems we face from the boundless problems all other people face."

was deleted.

Appendix C, introduction, first paragraph

Changed "logical relations" to "reasonable relations" in the first sentence.

Appendix C, Imagining the Designer, fourth paragraph, last two sentences

"You also chose the image of what appears to be a golden lotus blossom in a roundel to join the parts that form this ideal structure. Arguably, these roundels are symbols of religious enlightenment. For you, the question of whether religious enlightenment exists was never an issue."

were moved back to the footnote.

Appendix C, *Imagining the Designer*, third paragraph

Changed "rational relations between the pursuits of these boundless ends" to "virtually rational relations between the pursuits of these boundless ends near their limits" in the fifth sentence.

Appendix C, *Imagining the Designer*, fourth paragraph, footnote

Changed "religious enlightenment" to "it" in the new fourth sentence.

Changes in Version 2014.02.06

Chapter 1, Steps for Building Models of Deciding Well, entire subsection

Changed "the means to" to "the best means of pursuing" in all (3 occurrences).

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Chapter 1, Steps for Building Models of Deciding Well, first paragraph

Changed "useful" to "bare" in the third sentence.

Changed "this bare" to "this" in the fourth sentence.

Changed "the frames of the" to "this" in the last sentence.

Chapter 1, Steps for Building Models of Deciding Well, first paragraph, end

Added the footnote:

"¹⁴As we shall see, this is a matter of balancing the process of lowering its entropy with the process of increasing usefulness in helping us find problems to solve in pursuing the boundless end of deciding well."

Chapter 1, Ever More Complete Models of Deciding Well, first paragraph

Changed "the means to" to "the best means of pursuing" in the fifth sentence.

Chapter 7, An Extraordinary Anomaly, second paragraph

Changed "a concept of reason that addresses" to "addressing" in the second sentence.

Appendix A, introduction, last paragraph

Changed "Which of these processes" to "What" in the last sentence.

Appendix A, Ideal Forms, first paragraph

Changed "prove formally" to "formally prove" in the third sentence.

Appendix C, The Forgotten Role of Octagons, second paragraph, last two sentences

Changed "themes, the four elements" to "themes: the elements" in the third sentence.

Changes in Version 2014.02.08

Acknowledgments, last paragraph

Changed "tell ever more about" to "structure telling" in the last sentence.

Chapter 2, Consumption, first paragraph

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Added the footnote:

"³ The change in case from the third person to the first person is not a mistake. We cannot separate the boundless problems we face from the boundless problems all other people face."

Chapter 2, Pleasure and Pain, second paragraph

Changed "totally involving or immersing" to "immersing" in the second sentence.

Chapter 2, Pleasure and Pain, last paragraph

Changed "bias our" to "bias" in the second sentence.

Chapter 2, Trust, last paragraph

Changed "in two respects" to "in two major respects" in the first sentence.

Chapter 2, Three Common Mistakes, last paragraph

Changed "For example" to "So conceived" in the second sentence.

Chapter 3, introduction, second paragraph

Changed "simple" to "easy" in the fourth sentence.

Chapter 4, introduction, last paragraph

Changed "explain the world" to "explain" in the first sentence.

Chapter 4, Recursivity, first paragraph

"Whenever we use descriptions of the world to guide our actions, we sail into seas of complexity. This is because there is a two-way relation between the world and the descriptions we use to guide our actions."

were changed to:

"There exists a two-way relation between the world and the descriptions we use to guide our actions:"

Chapter 4, Modern Policy Mistakes, third paragraph

Changed ". We" to ": We" in the last two sentences.

Chapter 5, Promote Savings for Welfare, first paragraph

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Changed "problems" to "knowledge problems" in the third sentence.

Changed "how" to "knowing how" in the fourth sentence.

Changed "how" to "knowing how" in the last sentence.

Chapter 5, Pursue Boundless, not Temporal Order, first paragraph

Changed "in" to "into" in the third sentence.

Chapter 6, Experiencing Mystical Oneness, first paragraph

Changed "live well in the world as it currently is. For this, we need faith in" to "use" in the first sentence.

Changed "mystical oneness" to "to embrace the mysterious" in the third sentence.

Chapter 7, The Scope of Game Theory, first paragraph

"In the early 1980s, cognitive scientist Douglas Hofstadter sent a registered letter out to twenty experts asking them to play a one-time game against each other. In each two-player game, if both players cooperated, each would receive \$3; if both defected, each would receive \$1; and if one defected and the other cooperated, the defector would receive \$5 and the cooperator would receive \$0. Hofstadter told them that this was a one-time game and that, in his opinion, each player was equally bright. He asked them not to try to discuss this game with anyone, especially with other people whom they thought might be other players. He also gave them several scenarios to make sure that they understood the game. He told them that if everyone cooperated, everyone would receive \$57 (19 x \$3). If everyone defected, everyone would receive \$19 (19 x \$1). If eleven people cooperated and nine people defected, then each of the cooperators would get \$30 (10 x \$3 + 9 x \$0) and each of the defectors would get \$63 (11 x \$5 + 8 x \$1). He also told them that they should aim at getting as much money as possible rather than being a "winner." Finally, he asked each player to tell him whether and why they wished to cooperate or defect.²"

was changed to:

"In the early 1980s, cognitive scientist Douglas Hofstadter sent a registered letter out to twenty academics familiar with modern game theory asking them to play a two-player game against each of nineteen of their colleagues. Hofstadter told them that this was a one-time collective game and that, in his opinion, each player was equally bright. He asked them not to discuss this game with anyone, especially with other people whom they thought might be other players. He also told them that they should aim at getting as much money as possible rather than being a "winner." In each two-player game, if both players cooperated, each would receive \$3; if both defected, each would receive \$1; and if one defected and the other cooperated, the defector would receive \$5 and the cooperator would receive \$0. Hence, if everyone cooperated, everyone would receive \$57 (19 x \$3); if everyone defected, everyone

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would receive \$19 (19 x \$1); and if eleven people cooperated and nine people defected, then each of the cooperators would get \$30 (10 x \$3 + 9 x \$0) and each of the defectors would get \$63 (11 x \$5 + 8 x \$1). In closing, he asked each player to tell him whether and why they wished to cooperate or defect.²

Chapter 7, The Scope of Game Theory, second paragraph

Changed "game" to "one-time game of nineteen one-time, two-person games" in the first sentence.

Chapter 7, A Normal Anomaly, last paragraph

Changed "symmetrical games" to "games" in the fifth sentence.

Changed "given symmetrical games" to "same game more than once" in the sixth sentence.

Chapter 7, E-M Theory, second paragraph

Changed "smaller" to "smaller, but still large" in the sixth sentence.

Chapter 7, OODA Loop Analysis, second paragraph

Changed "temporally bounded" to "temporal" in the first sentence.

Chapter 7, The Grandest Possible Strategy, first paragraph

Changed ", for making our sovereign-rights story that of deciding well," to "," in the last sentence.

Chapter 8, fourth paragraph, footnote

Changed "this pledge" to "this nationalist/socialist pledge" and "boundless civil faith of Benjamin Franklin" to "boundless pragmatism" in the last sentence.

Chapter 8, last paragraph

Changed "was" to "is" in the first sentence.

Changes in Version 2014.02.11

Chapter 8, last paragraph

Changed "Near the end of Book IX of" to "In" in the first sentence.

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Added the following sentences to the front of the first footnote:

"Near the end of Book IX his Socrates describes the human psyche as consisting of a hydra, a lion, and a human. Inside this human part is a psyche consisting of a hydra, a lion, and a human. Inside this human part is a psyche consisting of a hydra, a lion, and a human. And so on to infinity. Our hydra parts are ruled by desire, our lion parts by spirit, and our human parts by reason. We refine reason by having our human parts train our lion parts to control our hydra parts."

Deleted the last sentence from the first footnote: "For more about Plato's boundless view of governing our minds well, see Appendix C (Renaissance Art)."

Appendix C, On the Philosophy Wall, last two paragraphs

"We can reduce the repetitive use of this symbol of two-part reason to a single symbol using Plato's self-similar metaphor of refining reason. Near the end of Book IX of *The Republic*, his Socrates describes the human psyche as consisting of a hydra, a lion, and a human. Inside this human part is a psyche consisting of a hydra, a lion, and a human. Inside this human part is a psyche consisting of a hydra, a lion, and a human. And so on to infinity. Our hydra parts are ruled by desire, our lion parts by spirit, and our human parts by reason. We refine reason by having our human parts train our lion parts to control our hydra parts. A visual means of expressing this self-similarity lies beneath our feet in a crude version of a self-similar image known to Roman artisans since the late eleventh century:

Using this image as a model, we can imagine a self-similar image that combines the simplicity of the square-within-an-octagon-within-a-square form with the dynamism of Plato and Aristotle walking across a series of these forms:

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"Reinforcing this image as a symbol of refining the two-part reason of Plato and Aristotle is the figure of Heraclitus, which visually connects the square-within-a-square-within-a-square symbol of endless rationality to the square-within-an-octagon-within-a-square symbol of the reason of Plato and Aristotle:

As Heraclitus contemplates the form under his feet, he records his thoughts on the level of his heart. The architectural block on which he both writes and leans not only is out of line with the rest of the architecture on this wall but also violates its single-point perspective.⁶ From these reminders of the problem of representing higher-dimensional objects, it is easy for us to imagine Heraclitus inspired to replace each of the squares in the form beneath his feet with the more complex form slightly above his head, thereby creating a truncated version of the symbol of refining the reason of Plato and Aristotle shown above:⁷

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From the boundless view, both are symbols of renaissance. The first is a boundless symbol of renaissance, of endlessly refining everyday thinking. The second is a modern symbol of the Renaissance, of a refinement of the knowledge of first-century BCE Roman engineer Vitruvius. Both are also symbols of squaring the circle. The first relates to the *philosophy* of Plato and Aristotle. The second relates to the *sophistry* of Protagoras and Vitruvius."

[&]quot;5 Conversano, E., Tedeschini Lalli, L., "Sierpinski Triangles in Stone on Medieval Floors in Rome," *Aplimat – Journal of Applied Mathematics*, Vol. IV (2011), No. IV, pp. 113–22, available online at

http://www.journal.aplimat.com/volume_4_2011/Journal_volume_4/Number_4/Conversan o_Tedeschini.pdf> (19 November 2013)."

[&]quot;⁶ There is undeniable evidence that Raphael did not include the figure of Heraclitus in his plans for the philosophy wall. Most art historians believe that he added it after completing the wall. Some believe that he intended it to be a symbol of inspired genius after seeing Michelangelo's Jeremiah on the ceiling of the Sistine Chapel."

[&]quot;⁷ The obvious reason that Raphael did not add this symbol of refining everyday thinking is that he did not imagine it. An alternative reason is that making room for it would have harmed the integration of the room as a whole. This is consistent with the belief that the

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authors of this room recognized that there were better ways of telling the story that they wanted to tell."

were changed to the following sentence at the end of the first paragraph:

"We may imagine Plato and Aristotle having crossed a series of these square-within-anoctagon-within-a-square forms as they walked forward."

Appendix C, On the Theology Wall, first paragraph, first two sentences

"We can find a visual variation of the octagon theme just above the center of the wall dedicated to theology. Here rays emanating from the encircled dove form superimposed Greek and Roman crosses:"

were changed to:

"We can find a visual variation of the octagon theme sans squares (rationality) on the wall dedicated to theology. Just above the center of this wall, rays emanating from the encircled dove form superimposed Greek and Roman crosses:"

Changes in Version 2014.02.12

Chapter 1, Steps for Building Models of Deciding Well, first paragraph, footnote

"15 This is a matter of balancing the process of lowering its entropy with the process of increasing its usefulness in helping us find problems to solve in pursuing the boundless end of deciding well. Logical models have the advantage of low entropy, but the disadvantage of tending to blind us to what lies beyond their bounds. As we shall see, we ought to seek *beautiful* models, models that strike the best possible balance between low entropy and usefulness."

was deleted.

Chapter 7, The Scope of Biological Evolution, last paragraph, footnote

"18 The boundless approach to deciding well uses a boundless heuristic algorithm. Using a metaphor made famous by philosopher Daniel Dennett (*Darwin's Dangerous Idea: Evolution and the Meanings of Life*, New York, Simon & Schuster, 1995), this algorithm is an infinitely large crane that contains countless hooks for pulling ourselves higher. At any given time some of these hooks appear to us to be in line with the apex of the crane and others do not. Further, some of these hooks appear to us to be supported by the crane structure and others do not. We ought to be open to using whatever hooks best help us decide well. We also ought to take care not to let our passion for Wholeness overcome our reason."

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was deleted.

Chapter 8, last paragraph, last footnote, last sentence

"Deciding well calls for the serenity to accept the things we cannot change, the courage to change the things we can, and the wisdom to know the difference."

was changed to:

"Deciding well calls for not losing oneself to a good attending spirit. It calls for the serenity to accept the things we cannot change, the courage to change the things we can, and the wisdom to know the difference."

Appendix C, On the Theology Wall, first paragraph

Changed "octagon theme sans squares (rationality)" back to "octagon theme" in the first sentence.

Appendix C, end

Added the section:

"The Problem of Heraclitus

The original design of the decoration of the Stanza della Segnatura did not include the massive figure of Heraclitus on the philosophy wall:

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"The cartoon for this fresco shows empty steps in this area. Raphael completed this fresco as planned, chipped away the image of empty steps, and added the figure of Heraclitus contemplating the three-level (square-within-a-square-within-a-square) symbol of pure rationality beneath his feet.

"What problem does pure rationality raise in the mind of this brooding lover of Wisdom who famously claimed that we cannot step into the same river twice? From the view of the room as a whole, to ask this question is to answer it: Pure rationality is the wrong tool for deciding well. Far better is the two-part reason of Plato and Aristotle.

"This answer raises another question: Why did Raphael go to such great lengths to add this figure? Did he have more in mind than recapitulating the strategy for bringing ever more Holy Wisdom into the world?

"To begin to answer this question we need to consider how this addition changed the fresco. The block on which Heraclitus both writes and leans has a two-point perspective that does not relate to the single-point perspective of the original fresco. In adding this perspective, Raphael changed the fresco from being purely rational to being more than purely rational. In adding this figure, he visually connected the symbol of reason beneath the feet of Heraclitus to that beneath the feet of Plato and Aristotle.

"We can easily imagine Heraclitus replacing each of the squares in the three-level symbol of pure rationality beneath his feet with the symbol of the two-part reason slightly above his head:

Given how easily we can imagine creating this image^s, we may speculate that what Raphael had in mind was the problem of how best to reduce the repetitive use of the reason of Plato and Aristotle to a two-dimensional symbol. Towards this end, we can easily imagine creating an image that symbolizes repeating the two-part reason of Plato and Aristotle an infinite number of times:

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Compare this symbol of boundless reason to Leonardo da Vinci's Vitruvian Man:	
'From the boundless view, both are symbols of renaissance. The first is a boundless symbol of renaissance, of endlessly refining everyday thinking. The second is a modern symbol of the Renaissance, of a refinement of the knowledge of first-century BCE Roman engineer Vitruvius. Both are also symbols of squaring the circle. 'The first relates to the <i>philosophy</i> of Plato and Aristotle. The second relates to the <i>sophistry</i> of Protagoras and Vitruvius."	
's Note that Roman artisans had been familiar with such self-similar images for hundreds of years. See Conversano, E., Tedeschini Lalli, L., "Sierpinski Triangles in Stone on Medieva Floors in Rome," <i>Aplimat – Journal of Applied Mathematics</i> , Vol. IV (2011), No. IV, pp. 113–22, which is available online at	

http://www.journal.aplimat.com/volume_4_2011/Journal_volume_4/Number_4/Conversan

"9 More accurately, the first concerns squaring the circle *well*. As we saw in the third chapter, we best calculate the transcendental number π to a sextillion decimal places neither by using the best currently known means of calculating π (the engineering approach) nor by waiting for a feasible means to evolve (the modern evolutionary approach), but rather by pursuing the

o_Tedeschini.pdf> (19 November 2013)."

boundless end of deciding well (the boundless approach)."

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Changes in Version 2014.02.17

Chapter 1, Temporal and Normative Frames, last paragraph, footnote

"6 Because what we deem to be a matter of efficiency changes with the size of the problem we choose, speaking of efficiency without specifying the problem can cause great confusion. For example, a problem that a chief executive may view as an efficiency problem, a supervisor may view as an effectiveness problem."

was moved to the end of the paragraph and changed to:

"6 Note that from a normative view, what we deem to be a matter of efficiency changes with the size of the problem we choose, hence speaking of efficiency without specifying the problem can cause great confusion. For example, a problem that a chief executive may view as an efficiency problem, a supervisor may view as an effectiveness problem. Also note that this simple means of distinguishing between temporal and normative frames is incomplete in that it does not include the possibility of finding better normative ends. As we shall see, including this possibility calls for expanding the scope of our problems to include the universal problem of deciding well."

Chapter 1, Steps for Building Models for Deciding Well, third and fourth paragraphs

"The way in which we define Wisdom and deciding well in terms of each other makes this single-frame model useless as a tool for helping us find holes in our current beliefs about how best to decide well. To make this model useful in finding such problems, we need to add frames to it. We can begin by adding a frame for believing well. We do so by defining the Truth to be the boundless end of believing well and by defining believing well to be the best means of pursuing the Truth.

"Adding the pursuit of the Truth allows us to explore the relations between the pursuits of Wisdom and Truth. Pursuing Wisdom calls for us to pursue the Truth and pursuing the Truth calls for us to pursue Wisdom. The better we pursue these two boundless ends, the more tightly these pursuits intertwine. If we pursued both perfectly, they would be the same pursuit."

were changed to:

"The way in which we define Wisdom and deciding well in terms of each other makes this single-frame model useless as a tool for helping us find holes in our current beliefs about how best to decide well. To make this model useful in finding such problems, we need to add frames to it.

"We can begin by adding a frame for believing well. We do so by defining the Truth to be the boundless end of believing well and by defining believing well to be the best means of pursuing the Truth. Pursuing Wisdom calls for us to pursue the Truth and pursuing the Truth calls for us to pursue Wisdom. The better we pursue these two boundless ends, the more

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tightly these pursuits intertwine. If we pursued both perfectly, they would be the same pursuit."

Changes in Version 2014.02.18

Acknowledgments, sixth paragraph

Changed "a year later" to "in the fall of 1993" in the fifth sentence.

Acknowledgments, last paragraph

Changed "best way forward" to "way forward" in the last sentence.

Chapter 1, introduction, second paragraph

Changed "this book" to "a printed book" in the second sentence

Chapter 1, The Truth and Wisdom, last paragraph, fifth sentence

"The Truth is one such boundless factor."

was deleted.

Chapter 1, Steps for Building Models of Deciding Well, title

Changed "Models of Deciding Well" to "Boundless Models" in the title.

Chapter 1, Ever More Complete Models of Deciding Well, title

Changed "Models of Deciding Well" to "Boundless Models" in the title.

Chapter 8, fourth paragraph

Changed "single-frame" to "temporal" and "multiple-frame" to "boundless" in the second sentence.

Changed "synthesis" to "universal synthesis" in the last sentence.

Chapter 8, fourth paragraph, footnote

Changed "Modern readers should not confuse this boundless synthesis with" to "Note that this boundless synthesis differs markedly from" in the first sentence.

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Appendix C, The Problem of Heraclitus, last paragraph

Changed "an image that symbolizes" to "a symbol of" in the third sentence.

Changes in Version 2014.02.19

Chapter 1, Seeing through Apparent Miracles, last paragraph

Changed "unexpected events ever more wisely" to "unexpected events well" in the last sentence.

Chapter 4, Refining Everyday Thinking, first two paragraphs

Changed "(evolving) standards" to "current standards" in all (2 occurrences).

Chapter 7, OODA Loop Analysis, second paragraph

Changed "experience" to "better habits" in the sixth sentence.

Appendix A, Ideal Forms, first paragraph

Changed "to seek to disprove" to "to disprove" in the last sentence.

Appendix B, introduction, first paragraph, first sentence

"From the view of deciding well put forth in this work, the endless process of producing well is a matter of creating wealth using ever less non-knowledge resources."

was changed to:

"From the boundless view, producing well is a matter of creating wealth using ever more wisely."

Appendix C, introduction, first paragraph

Changed "what we here call Beauty" to "Beauty" in the third sentence.

Appendix C, On the Jurisprudence Wall, first paragraph

Changed "living well" to "what people currently know about the world" in the fourth sentence.

Changed ", the corner touching the philosophy wall," to "," in the fifth sentence.

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Changed "living ever more wisely" to "what people may learn about the world" in the sixth sentence.

Changed ", the corner touching the theology wall," to "," in the seventh sentence.

Split images in the HTML and paginated Word version to match Kindle version.

Appendix C, On the Poetry Wall, first paragraph

Changed "toward heaven" to "upward" in the last sentence.

Appendix C, A Boundless View of the Whole, second paragraph

Inserted the footnote before the last sentence of the first paragraph.

Appendix C, The Problem of Heraclitus, fourth paragraph, last sentence

"Did he have more in mind than recapitulating the strategy for bringing ever more Holy Wisdom into the world?"

was deleted.

Appendix C, The Problem of Heraclitus, fifth paragraph

Changed "this figure" to "the figure itself" and "connected" to "linked" in the last sentence.

Merged this paragraph with the preceding paragraph.

Appendix C, The Problem of Heraclitus, new fifth paragraph

Changed "We" to "Given this visual link between pure rationality and the two-part reason of Plato and Aristotle, we" in the first sentence.

Changed "imagine creating" to "create" and "images," to "self-similars image," in the second sentence.

Changed "Towards" to "Toward" and "the repetitive use of the reason of Plato and Aristotle" to "deciding well using the complex reason of Plato and Aristotle" in the third sentence.

Changed "boundless reason" to "deciding well" in the fourth sentence.

Changed "engineering approach" to "engineering approach to overcoming constraints" in the first sentence of the footnote.

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Changes in Version 2014.02.20

Sally Osborn edit

Entire book

Changed "temporally-bounded" to "temporally bounded" in all (5 occurrences).

Changed "space-time" to "spacetime" in all (2 occurrences).

Preface, first paragraph

Changed "Chicago trained" to "Chicago-trained" in the first sentence.

Preface, third paragraph

Changed ", ever more effective in deciding well and ever more efficient in solving given problems" to "(ever more effective in deciding well and ever more efficient in solving given problems)" in the second to last sentence.

Chapter 1, Temporal and Normative Models, fourth paragraph

Changed "tool-setters" to "tool setters" in the last sentence.

Chapter 1, Temporal and Normative Models, sixth paragraph

Changed ": when" to ": When" in the fourth sentence.

Changed ": it" to ": It" in the new sixth sentence.

Chapter 1, Seeing Through Apparent Miracles, title

Changed "Through" to "through" in the title.

Chapter 1, Seeing through Apparent Miracles, first paragraph

Changed "less" to "fewer" in the fourth bullet point.

Chapter 1, Boundless Models of Deciding Well, first paragraph

Changed ": running" to ": Running" in the third sentence.

Chapter 4, Self-Similarity, first paragraph

Changed "become more" to "to become more" in the fourth sentence (2 occurrences).

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Chapter 5, The Explicit Experiment, first paragraph

Changed "sovereign rights passage" to "sovereign-rights passage" in the second sentence.

Chapter 5, A Sovereign Story for Deciding Well, first paragraph

Changed "sovereign rights stories" to "sovereign-rights stories" in the second sentence.

Chapter 5, Good Policies, first paragraph

Changed "people closest" to "the people closest" in the third sentence.

Chapter 5, Promote Savings for Welfare, first paragraph

Changed "how knowing" to "knowing how" in the fourth sentence.

Chapter 5, Promote Savings for Welfare, second paragraph

Changed "safety net programs" to "safety-net programs" in the sixth sentence.

Changed "safety net programs" to "safety-net programs" in the last sentence.

Chapter 5, Pursue Boundless, not Current Order, title

Changed "not" to "Not" in the title.

Chapter 6, Being Needs, second paragraph

Changed "physiological needs" to "physiological" in the fourth sentence.

Chapter 7, A Normal Anomaly, last paragraph

Changed "symmetrical" to "symmetric" in the sixth sentence.

Chapter 7, OODA Loop Analysis, third paragraph

Changed "hiss" to "his" in the second sentence.

Appendix A, introduction, sixth paragraph (Word version only)

Changed "change" to "to change" in the last sentence.

Appendix B, Machine Tools, fifth paragraph

Changed "insures" to "ensures" in the third sentence.

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Appendix C, The Forgotten Role of Octagons, second paragraph

Changed ": minds" to ": Minds" in the last sentence.

Appendix C, The Role of Julius II, first paragraph

Changed "(gold" to "(a gold" in the third sentence.

Appendix C, The Role of Julius II, fifth paragraph

Changed "challenges" to "challenged" in the third sentence.

Changes in Version 2014.02.22

Entire document

Changed "formally prove" to "prove formally" in all (4 occurrences).

Changed "formally proving" to "proving formally" in all (1 occurrence).

Chapter 1, Boundless Models of Deciding Well, first paragraph

Changed "Running well does not include reasoning" to "Pursuing normative ends well does not include choosing normative ends" in the last sentence.

Chapter 8, last paragraph, first footnote

Changed "the ideal mind" to "an ideal mind" in the last sentence.

Chapter 8, last paragraph, last footnote, last two sentences

"Deciding well calls for not losing oneself to a good attending spirit. It calls for the serenity to accept the things we cannot change, the courage to change the things we can, and the wisdom to know the difference."

were changed to:

"Deciding well calls for the serenity to accept the things we cannot change, the courage to change the things we can, and the wisdom to know the difference. As the personal lives of Georg Cantor and Kurt Gödel attest, it calls for *not* losing oneself to a good attending spirit."

Appendix A, Ideal Forms, second paragraph

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Changed "solutions to problems" to "forms" in the second sentence.

Appendix C, entire appendix

Changed "two-part reason" to "complex reason" in all (7 occurrences).

Appendix C, On the Poetry Wall, first paragraph

Changed "complex reason" to "complex reason of Plato and Aristotle" in the third sentence.

Changes in Version 2014.02.28

Chapter 2, Pleasure and Pain, second paragraph

Changed "this type of pleasure" to "this type" in the seventh sentence.

Changed "this type of pain" to "this type" in the last sentence.

Chapter 2, *Pleasure and Pain*, sixth paragraph, second sentence

"This is the pleasure of being."

was deleted.

Chapter 2, *Pleasure and Pain*, sixth paragraph, last two sentences

"The second type of pain is the pain of deprivation, the pain of needs not satisfied. We may call this type *pain-in-being*."

were changed to:

"The second type of pain, which we may call *pain-in-being*, is the pain of deprivation, the pain of needs not satisfied."

Chapter 3, introduction, first paragraph

Changed "multiple-frame models for helping us find problems to solve" to "boundless models" in the first sentence.

Chapter 3, Public Order, last paragraph

Changed "across the whole of spacetime" to "" in the second sentence.

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Chapter 4, Academic Fields, second paragraph

Changed "joints," to "joints" in the fourth sentence.

Chapter 4, Academic Fields, fourth paragraph

Changed "the whole of spacetime" to "regardless of our beliefs and circumstances" in the first sentence.

Chapter 7, Boyd's Grand Strategy, last paragraph, footnote

"Applying learning to the OODA loop itself would expose the incompleteness of his decision-cycle theory."

was deleted.

Chapter 7, The Scope of Boundless Pragmatism, last paragraph

Changed "evolution" to "evolution, which calls for describing the world using more than the rules of logic" in the last sentence.

Chapter 8, fourth paragraph

Changed "(after the universal synthesis of dialectics and instrumental analysis²)." to ".²" in the last sentence.

Chapter 8, fourth paragraph, footnote

Changed "boundless synthesis" to "boundless synthesis of modern dialectics and instrumental analysis" in the first sentence.

Chapter 8, fifth paragraph, last footnote

Changed "finesse" to "search algorithm" in the last sentence.

Chapter 8, last paragraph, last footnote

Changed "*not* losing oneself to a good attending spirit" to "not losing control of oneself to a less than perfectly wise daemon/spirit" in the last sentence.

Appendix C, On the Jurisprudence Wall, first paragraph

Changed "the square-within-an-octagon-within-a-square theme" to "this theme" in the first sentence.

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Changed "become people by choosing to learn to live ever more wisely at the cost of becoming ever more self-aware" to "eat the fruit of the tree of knowledge of good and evil" in the last sentence.

Appendix C, On the Theology Wall, first paragraph

Changed "octagon theme" to "ceiling theme" in the first sentence.

Changed "the boundless end of deciding well, which for Roman Catholics is Holy Wisdom (*Hagia Sophia/Logos*)" to "Wisdom" in the last sentence.

Appendix C, On the Poetry Wall, first paragraph

Changed "this theme" to "both themes" in the first sentence.

Appendix C, On the Poetry Wall, first paragraph, third and fourth sentences

"He appears to play an eight-note, repeating-octave scale melody using the seven fingerboard strings and a two-note drone using the two strings above the fingerboard. Arguably, this two-note drone represents the complex reason of Plato and Aristotle that underlies deciding well:"

were changed to:

"He plays an eight-note, repeating-octave scale melody using the seven fingerboard strings and a two-note drone using the two strings above the fingerboard. Poetically, this drone is the reason that underlies the melody of pursuing Wisdom:"

Appendix C, On the Poetry Wall, first paragraph, last sentence

"From these various depictions of the complex reason of Plato and Aristotle, we may reasonably conclude that the decoration of this room depicts an esoteric strategy for bringing ever more knowledge of Holy Wisdom into the world by pursuing four boundless factors of deciding well."

was promoted to a new subsection and changed to:

"An Esoteric Strategy

From these various depictions of pursuing Wisdom and the complex reason of Plato and Aristotle we may reasonably conclude that the decoration of this room depicts an esoteric strategy for pursuing Wisdom, which for Roman Catholics is a matter of bringing ever more Holy Wisdom (*Hagia Sophia/Logos*) into the world."

Appendix C, A Boundless View of the Whole, first paragraph, footnote

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"6 If this floor represented the modern rational mindset rather than the medieval rational mindset, the large working area of the room would represent the modern natural sciences and the surrounding rectangles would represent all other fields."

was moved ahead two sentences and changed to:

"6 From the boundless view, this work area represents a rational plan for carrying out the mission of Julius II. Given that the crossed-keys symbol at its center matches the symbol at the center of the ceiling, this mission appears to be the same as the mission depicted in the room as a whole. If so, the four disparate fields defined by curvilinear borders are likely the same fields depicted on the four walls of the room. The curvilinearity of these borders represents the pretense of rationality found in all formal belief systems that pretend to the Truth."

Appendix C, Imagining the Designer, fourth paragraph

Changed "help us decide well" to "help us to decide well" in the last sentence.

Appendix C, The Problem of Heraclitus, third paragraph

Changed "original fresco" to "original fresco on the philosophy wall" in the third sentence.

Changed "the fresco" to "this fresco" in the fourth sentence.

Changed "symbol of reason beneath the feet of Heraclitus to that beneath the feet" to "square-within-a-square-within-a-square tile pattern to the square-within-an-octagon-within-a-square tile pattern" in the last sentence.

Appendix C, The Problem of Heraclitus, fourth paragraph, first sentence

"Given this visual link between pure rationality and the complex reason of Plato and Aristotle, we can easily imagine Heraclitus replacing each of the squares in the three-level symbol of pure rationality beneath his feet with the symbol of the complex reason slightly above his head:"

was appended to the preceding paragraph and changed to:

"Using this link we can easily imagine replacing each of the squares in the first symbol with the second symbol:"

Appendix C, The Problem of Heraclitus, last paragraph, first four sentences

"From the boundless view, both are symbols of renaissance. The first is a boundless symbol of renaissance, of endlessly refining everyday thinking. The second is a modern symbol of the Renaissance, of a refinement of the knowledge of first-century BCE Roman engineer Vitruvius. Both are also symbols of squaring the circle."

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were changed to:

"From the boundless view, both are symbols of symbols of squaring the circle.9"

Appendix C, The Problem of Heraclitus, last paragraph, footnote

Changed "approach to overcoming constraints" to "approach" in the last sentence.

Changes in Version 2014.03.05

Preface, last paragraph, third sentence

"Both to help readers whose native language is not English and to slow down speed readers, I used commas liberally."

was changed to:

"To help readers whose native language is not English, I used commas liberally."

Chapter 8

Added the section title "Three Types of Reason" before the second paragraph.

Added the section title "Eudaemonia" before the third to the last paragraph.

Chapter 8, Three Types of Reason, last paragraph

Changed "disprove" to "disprove empirically" in the fourth sentence.

Appendix A, Ideal Forms, first paragraph

Changed "the form" to "it" in the last sentence.

Appendix A, Ideal Forms, second paragraph

Changed "disprove that they are most useful in deciding well" to "disprove empirically that they are most useful" in the last sentence.

Appendix A, Ideal Forms, last paragraph, first sentence

Added the footnote:

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"⁶ Trying to prove formally the existence of intuition drove Gödel insane. The boundlessly pragmatic alternative is disproving empirically the usefulness of the boundless concept of beauty in helping us find problems to solve."

Appendix C, Imagining the Designer, third paragraph

Changed "picture" to "pictorial structure" in the second sentence.

Changed "picture" to "structure" in the third sentence.

Appendix C, Imagining the Designer, last paragraph

Changed "hired" to "recommended hiring" in the second sentence.

Appendix C, The Problem of Heraclitus, third paragraph, fifth and sixth sentences

"In adding this perspective, Raphael changed this fresco from being purely rational to being more than purely rational. In adding the figure itself, he visually linked the square-within-a-square tile pattern to the square-within-an-octagon-within-a-square tile pattern."

were changed to:

"Great artists add perspectives in order to tell us something. Here, Raphael told us two things. First, communicating well calls for more than pure rationality. Second, the figure of Heraclitus has special significance.

"In adding the figure of Heraclitus, Raphael visually linked the symbol of pure rationality beneath the feet of Heraclitus to the symbol of the two-part reason of Plato and Aristotle slightly above his head."

Appendix C, The Problem of Heraclitus, last paragraph, first footnote, last two sentences

"In an ideal state, all people work together in deciding well. Similarly, in an ideal mind all parts work together in deciding well."

were italicized.

Changes in Version 2014.03.07

Chapter 8, Three Types of Reason, first three paragraphs

"Excellence in relating beliefs depends on the type of end we choose to pursue. When we pursue temporal ends, we seek to find the best solution to a given temporal problem. Reason

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concerns the models we use to describe given temporal problems. We may call the set of rules that we use to relate beliefs well within these models the rules of logic (after the rules of reason that Aristotle used to relate beliefs in his pursuit of natural forms).

"When we pursue normative ends, we seek not only to find the best solutions to temporal problems but also to find the best problems to solve in pursuing our chosen normative end. Reason concerns not only the models that we use to solve given problems but also the models that we use to find problems to solve in pursuing our chosen normative end. We may call the set of rules that we use to relate beliefs well these models to deciding well *the rules of modern dialectics* (after the modern interpretation of the form of discourse that Plato's Socrates used to explain what normative ends are not).

"When we pursue the boundless end of deciding well, we seek not only to find the best solution to given temporal problems but also the best temporal problems to solve. Reason concerns not only the temporal models we use to solve given problems but also the boundless models that we use to find problems to solve. We may call the set of rules that we use to relate beliefs well within this approach to deciding well *the rules of boundless pragmatism.*²"

were changed to:

"Excellence in relating beliefs depends on the type of end we choose to pursue. When we pursue temporal ends, we seek to solve temporal problems well. We may call the set of rules that we use to relate beliefs well in solving temporal problems well *the rules of logic* (after the rules of reason that Aristotle used to relate beliefs in his pursuit of natural forms).

"When we pursue the normative end of living well, we seek not only to solve temporal problems well but also to find them well. We may call the set of rules that we use to relate beliefs well within this approach to living well the rules of modern dialectics (after the modern interpretation of the form of discourse that Plato used to explain what normative ends are not).

"When we pursue the boundless end of deciding well, we seek not only to solve temporal problems well but also to find them well. We may call the set of rules that we use to relate beliefs well within this approach to deciding well *the rules of boundless pragmatism.*"

Chapter 8, Three Types of Reason, last paragraph

Changed "this concept" to "it" in the fourth sentence.

Chapter 8, Eudaemonia, first paragraph

"The boundless approach to deciding well involves building superrational frameworks for supporting our current beliefs. Missing from this approach as described to this point is a means of understanding constraints on our ability to receive and process information unconsciously. To decide well, we need to consider these constraints. Both as humans and as people living with humans, we need to consider the human condition."

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was changed to:

"Missing from the boundless approach as described to this point is a means of understanding constraints on our ability to receive and process information unconsciously. To decide well, we need to consider these constraints. Both as humans and as people living with humans, we need to consider the human unconscious."

Appendix A, Ideal Forms, last paragraph, footnote

Changed "helping us find problems to solve" to "living well" in the last sentence.

Appendix C, On the Philosophy Wall, first paragraph, first two sentences

"The next most important octagon is that on which Plato and Aristotle stand on the wall dedicated to philosophy. This octagon is part of a symbol of the complex reason of Plato and Aristotle:"

were changed to:

"The next most important octagon is that on the wall dedicated to philosophy. This octagon is part of a symbol of the complex reason of Plato and Aristotle, which forms part of a repeating tile pattern on which these two men walk forward together:"

Appendix C, Imagining the Designer, fourth paragraph, first two sentences

"This insight struck you with the force of divine revelation. Accordingly, you chose to decorate this structure with repeating patterns from your early reveries."

were changed to:

"You chose to decorate this structure with repeating patterns from your early reveries."

Appendix C, The Problem of Heraclitus, sixth paragraph

Changed "a symbol of deciding well using the complex reason of Plato and Aristotle" to "such a symbol" in the second sentence.

Changed "symbols of squaring the circle" to "symbols of squaring the circle, of using reason to pursue transcendental knowledge" in the fourth sentence.

Changes in Version 2014.03.10

Chapter 1, Choosing Frames Well, first paragraph, footnote

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"4 The term 'people' in this work refers to the concept of embodied beings who use language to plan and learn from their actions. The boundless approach to deciding well emerges from the combination of physics and intelligence, hence applies to all embodied intelligent beings. Speculation about the existence of non-human people is beyond the scope of this work."

was changed to:

"4 The term 'people' in this work refers to "beings bound to live well in the flow of time who use language to plan and learn from their actions.""

Chapter 1, Temporal and Normative Models, first paragraph

Changed "and pairs of concepts defined in terms of each other" to ", pairs of concepts defined in terms of each other, and apparently irrelevant facts about the world" in the first sentence.

Chapter 1, The Truth and Wisdom, fifth paragraph, footnote, last five sentences

"We are as pilots flying on instruments through a storm. In contrast, according to the most modern form of the "pictorial" approach to language, which is that of Ludwig Wittgenstein's *Tractatus Logico-Philosophicus*, we use language to depict the world exactly how it is. We are as painters using a *camera obscura* to record a still-life scene. Received science (logical empiricism) has roots in this temporal concept of language. To learn more about the limits of temporal language, read Nelson Goodman's *Fact, Fiction, and Forecast* (Cambridge, MA: Harvard University Press, 1955)."

were changed to:

"In contrast, according to the most modern form of the "pictorial" approach to language, which is that of Ludwig Wittgenstein's *Tractatus Logico-Philosophicus*, we use language to describe and relate current facts about the world. What lies beyond these facts we cannot say. Received science (logical empiricism) has roots in this myopic concept of language, which blinds us to most facts about potential states of the world, particularly to facts that relate to transcendental ends."

Chapter 3, A Boundlessly Pragmatic Approach to Quantum Mechanics, sixth paragraph

Added the footnote:

"10 Explanations are more than predictions written backwards. Consider how the simplifying assumptions of relativity theory tend to blind us to the possibility of cooperating without communicating. We can cooperate with people long before we are able to communicate with them. We do so by deciding well using the boundless approach. Assuming that self-conscious forms of artificial intelligence can exist and that such beings would likely evolve much faster than we humans do, we would be wise to have a culture based on deciding well

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using this approach in place before we create them. We would also be wise to program all self-improving forms of artificial intelligence to pursue Wisdom."

Chapter 3, A Boundlessly Pragmatic Approach to Quantum Mechanics, seventh paragraph, first footnote, last two sentences

"Note that we may cooperate with others not only by communicating with each other but also by following the same strategy. In deciding well, the concept of absolute time is not without use."

were deleted.

Chapter 3, A Boundlessly Pragmatic Approach to Quantum Mechanics, eighth paragraph, last footnote

Changed "extraterristeral forms of intelligent life who are willing to converse with" to "people on other planets who are currently willing to talk to" in the first sentence.

Changed "extraterristeral intelligent life" to "people on other planets" in the second sentence.

Chapter 8, Three Types of Reason, first paragraph

Changed "relate beliefs in his pursuit of natural forms" to "relate beliefs" in the last sentence.

Changes in Version 2014.03.14

Acknowledgments, last paragraph

Changed "the last eighteen years" to "over fifty years" in the first sentence.

Preface, seventh paragraph, second through fourth sentences

"We may think of these resources as universal factors of deciding well that we can never have in excess. We may call these facets of transcendental wisdom *boundless factors of deciding well*. So conceived, the pursuits of these knowledge resources form a complex structure:"

were changed to:

"We may call universally useful forms of these resources boundless factors of deciding well. So conceived, the pursuits of these factors form a complex structure:"

Preface, seventh paragraph

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Changed "boundless factor (y)" to "boundless factor of deciding well (y)" in the first sentence of the block quote.

Preface, second to last paragraph, last sentence

"It helps us find not only conflicts but also holes in our belief systems."

was changed to:

"I conclude this book by describing what I believe to be its greatest shortcoming."

Appendix A, introduction, fourth paragraph

Changed "a regular polygon having a point on the rightmost point of its circumscribing circle" to "a vertex-right-aligned regular polygon (a regular polygon having a vertex on the rightmost point of its circumscribing circle)" in the first sentence.

Removed quotation marks from around "vertex-right-aligned" in the last sentence.

Appendix A, Ideal Forms, first paragraph, footnote

Changed "regular versus irregular" to "results-oriented" and "no-transform versus transform" to "process-oriented" in the last sentence.

Removed quotation marks from around "vertex-right-aligned" in the last sentence.

Appendix C, The Forgotten Role of Octagons, first paragraph

Changed "octagons" to "octagons, which represent the unity of the transcendental and normative ends of four facets of Wisdom" in the first sentence.

Appendix C, A Boundless View of the Whole, first paragraph, footnote

Changed "rational plan for" to "sophistic model for finding problems to solve in" in the first sentence.

Appendix C, The Problem with Heraclitus, third paragraph, first sentence

"This answer raises another question:"

was deleted.

Appendix C, The Problem with Heraclitus, third paragraph, fifth and sixth sentences

"Great artists add perspectives in order to tell us something. Here, Raphael told us two things. First, communicating well calls for more than pure rationality."

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were changed to:

"We can learn at least two things from this. First, Raphael believed he needed more than one view to get his message across."

Appendix C, The Problem with Heraclitus, fourth paragraph, first sentence

Inserted the sentence:

"What might this significance be?"

Appendix C, The Problem with Heraclitus, last paragraph, third and fourth sentences

"Given how easily we can create this self-similars image, we may speculate that what Raphael had in mind was the problem of how best to reduce deciding well using the complex reason of Plato and Aristotle to a two-dimensional symbol. Toward this end, we can easily imagine such a symbol:"

were changed to:

"Using this self-similars image as a model, we can imagine a symbol of deciding well using the complex reason of Plato and Aristotle:"

Appendix C, The Problem with Heraclitus, fourth paragraph, footnote

Changed "such self-similar" to "self-similar" in the first sentence.

Appendix C, The Problem with Heraclitus, last paragraph

Appended last paragraph to preceding paragraph

Appendix C, The Problem with Heraclitus, last paragraph, last three sentences

"From the boundless view, both are symbols of squaring the circle, of using reason to pursue transcendental knowledge." The first relates to the *philosophy* of Plato and Aristotle. The second relates to the *sophistry* of Protagoras and Vitruvius."

"9 More accurately, the first concerns squaring the circle well. As we saw in the third chapter, we best calculate the transcendental number π to a sextillion decimal places neither by using the best currently known means of calculating π (the engineering approach) nor by waiting for a feasible means to evolve (the modern evolutionary approach), but rather by pursuing the boundless end of deciding well (the boundless approach)."

were changed to:

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"The first relates to the *philosophy* of Plato and Aristotle. The second relates to the *sophistry* of Protagoras and Vitruvius. Raphael appears to have added this figure in order to reinforce the message that deciding well calls for more than rationality."

" 9 From the boundless view, both are symbols of squaring the circle. However, the first concerns squaring the circle *well*. As we saw in the third chapter, we best calculate the transcendental number π to a sextillion decimal places neither by using the best currently known means of calculating π (the engineering approach) nor by waiting for a feasible means to evolve (the modern evolutionary approach), but rather by pursuing the boundless end of deciding well (the boundless approach)."

Changes in Version 2014.03.20

Chapter 1, Temporal and Normative Frames, last paragraph, footnote

Changed "include the universal problem of deciding well" to "the limits of imagination" in the last sentence.

Chapter 1, Boundless Models of Deciding Well, third paragraph, footnote

"10 We may think of *reasonableness* as the philosophical analogue of the mathematical concept of computability. So conceived, the relations between the members of the set of boundless factors of deciding well are reasonable in that we can imagine how their ideal (transcendental) forms relate to each other logically. As we shall see, this reasonableness emerges from our latent tendency to pursue the boundless end of deciding well."

was changed to:

"10 Here we imagine how the ideal forms of these boundless factors relate to each other. From this we can imagine a concept of reasonableness that is the scientific analogue of the mathematical concept of computability. As we shall see, this concept emerges from our latent tendency to pursue the boundless end of deciding well."

Chapter 1, The Truth and Wisdom, fifth paragraph, footnote

Added the sentences:

"For an elaborate 500-year-old depiction of this temporal/logical problem, see Appendix C (Renaissance Art). For a modern view of some aspects of it, read Nelson Goodman's <u>Fact</u>, <u>Fiction</u>, <u>and Forecast</u> (Cambridge, MA: Harvard University Press, 1983)."

Changed "myopic concept" to "concept" in the third sentence.

Chapter 1, Ever More Complete Boundless Models, first paragraph

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Changed "flourish" to "thrive" in the first sentence.

Chapter 5, The Explicit Experiment, last paragraph, footnote

Changed "In 1933" to "Also in 1933" in the fifth sentence.

Chapter 7, The Grandest Possible Strategy, first paragraph, last footnote

Added the sentences:

"From the boundless view, this sense of right comes not from our current interpretations of texts, but rather from the endless pursuit of complete knowledge of the laws of nature and how they may help us learn to live ever more wisely. Some may think of this process as refining our imperfect understanding of Shari'a. However we think of it, we recognize that this process is endless: The wise man says, "I am looking for the truth," and the fool, "I have found the truth.""

Chapter 8, Eudaemonia, last paragraph, footnote

Changed "perfect" to "perfectly wise" in the last sentence.

Chapter 8, Eudaemonia, last paragraph, end

Added the sentence:

"Although complete knowledge of how best to decide well will always exceed our grasp, we ought to reach for it. We ought to pursue Wisdom."

Chapter 8, Three Types of Reason, third paragraph, footnote

Changed "citizens" to "working-age citizens" in the second sentence.

Chapter 8, Three Types of Reason, fourth paragraph, last footnote

Changed "problem of not knowing the Truth" to "problem" in the first sentence.

Appendix A, seventh paragraph, second through fourth sentences

"6 Trying to prove formally the existence of intuition drove Gödel insane. The boundlessly pragmatic alternative is disproving empirically the usefulness of the boundless concept of beauty in living well."

was changed to:

"6 Gödel believed that reason in mathematics includes intuition as well as logic. Trying to prove this formally led him ever deeper into mental illness. From the boundless view, the

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alternative to proving formally that reason includes intuition is disproving empirically the usefulness in living well of the boundless approach to deciding well. To learn something about how Gödel approached his problem, read his unpublished 1961 paper "The Modern Development of the Foundations of Mathematics in Light of Philosophy" (*Collected Works, Volume III: Unpublished Essays and Lectures*, Oxford University Press, New York, USA, 1995, pp. 374-387), which is available online at http://www.marxists.org/reference/subject/philosophy/works/at/godel.htm (20 March 2014). For a deeper understanding of his thinking, read W. W. Tait's "Gödel's Unpublished Papers on Foundations of Mathematics," which is available online at http://home.uchicago.edu/~wwtx/goedel.pdf (20 March 2014)."

Appendix A, Ideal Forms, first paragraph

Changed "it" to "the form" in the last sentence.

Appendix A, Ideal Forms, second paragraph

Changed "knowledge" to "knowledge well" in the second sentence.

Appendix C, On the Jurisprudence Wall, last paragraph

Changed "knowledge of good and evil" to "knowledge of good and evil at the cost of becoming ever more self-aware" in the last sentence.

Appendix C, The Role of Julius II, last paragraph

Added the footnote:

"⁷ Why did the authors chose this myth rather than that of Icarus to depict the danger of hubris? Perhaps to remind Julius II that no one is immune from it. Marsyas was the most virtuous of satyrs, a person to whom Alcibiades compared Socrates in the *Symposium*. In contrast, Icarus was the callow son of the designer of the Minoan Labyrinth."

Appendix C, The Problem with Heraclitus, fourth paragraph, fourth sentence

"We can learn at least two things from this."

was changed to:

"From this we can learn at least two things:"

Appendix C, The Problem with Heraclitus, last paragraph, footnote

"10 From the boundless view, both are symbols of squaring the circle. However, the first more accurately concerns squaring the circle *well*. As we saw in the third chapter, we best calculate the transcendental number π to a sextillion decimal places neither by using the best currently

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known means of calculating π (the engineering approach) nor by waiting for a feasible means to evolve (the modern evolutionary approach), but rather by pursuing the boundless end of deciding well (the boundless approach)."

was changed to:

"10 From the boundless view, both images are also symbols of squaring the circle. As we saw in the third chapter, in overcoming the constraints of calculating π to a practically infinite number of decimal places, the boundless approach is better than either the engineering approach (using the best currently known means) or the modern evolutionary approach (waiting for a feasible means to evolve)."

Changes in Version 2014.03.27

Chapter 1, Seeing Through Apparent Miracles, last paragraph, last sentence

"We learn to handle unexpected events well."

was changed back to:

"We can learn to handle unexpected events ever more wisely."

Chapter 8, Three Types of Reason, third paragraph

Changed "find them well" to "find them ever more wisely" in the first sentence.

Appendix C, An Esoteric Strategy, entire subsection

"An Esoteric Strategy

From these various depictions of pursuing Wisdom and the complex reason of Plato and Aristotle we may reasonably conclude that the decoration of this room depicts an esoteric strategy for pursuing Wisdom, which for Roman Catholics is a matter of bringing ever more Holy Wisdom (*Hagia Sophia/Logos*) into the world."

was changed to:

"An Esoteric Strategy for Deciding Well

From these various depictions of pursuing Wisdom and of the complex reason of Plato and Aristotle, we may reasonably conclude that the decoration of this room depicts a strategy for pursuing Wisdom. For Roman Catholics, this is a matter of bringing ever more Holy Wisdom (*Hagia Sophia/Logos*) into the world.

"From current ignorance of this strategy, we may reasonably conclude that only a few people were meant to know of it. Keeping this knowledge secret is bad only if doing so hinders

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deciding well. In the short run, whether it is bad is not clear. In the very long run, it is clear: To decide well people need to know how best to decide well."

Changes in Version 2014.03.31

Acknowledgments, sixth paragraph

Changed "Wealth in the Information Age, A Humanistic Approach to Economics" to "Wealth in the Information Age" in the fourth sentence.

Chapter 1, Choosing Frames Well, last paragraph, footnote

Changed "view" to "boundless view" and "indispensable to deciding well" to "ideal forms" in the fifth sentence.

Chapter 1, Temporal and Normative Frames, last paragraph, footnote

"6 Note that from a normative view, what we deem to be a matter of efficiency changes with the size of the problem we choose, hence speaking of efficiency without specifying the problem can cause great confusion. For example, a problem that a chief executive may view as an efficiency problem, a supervisor may view as an effectiveness problem. Also note that this simple means of distinguishing between temporal and normative frames is incomplete in that it does not include the possibility of finding better normative ends. As we shall see, including this possibility calls for expanding the scope of our problems to the limits of imagination."

was changed to:

"6 Note that from a normative view, what we deem to be a matter of efficiency changes with the size of the problem we choose, hence speaking of efficiency without specifying the problem scale can cause great confusion. For example, a problem that a chief executive may view as an efficiency problem, a supervisor may view as an effectiveness problem."

Chapter 1, Boundless Models of Deciding Well, last paragraph, footnote

Changed "the boundless" to "this" in the first sentence.

Changed "a boundless view of deciding well" to "this view" in the second sentence.

Chapter 1, The Truth and Wisdom, fourth paragraph, footnote

Changed "Philosophers" to "Modern philosophers" in the second sentence.

Chapter 1, Ever More Complete Boundless Models, third paragraph, footnote

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Changed "boundless approach to deciding well put forth in this work" to "boundless approach" in the last sentence.

Chapter 3, A Boundlessly Pragmatic Interpretation of Quantum Mechanics, sixth paragraph, footnote, last two sentences

"Assuming that self-conscious forms of artificial intelligence can exist and that such beings would likely evolve much faster than we humans do, we would be wise to have a culture based on deciding well using this approach in place before we create them. We would also be wise to program all self-improving forms of artificial intelligence to pursue Wisdom."

were changed to:

"Assuming that self-conscious forms of artificial intelligence can exist and that such beings would likely evolve much faster than we humans do, we would be wise to program all self-improving forms of artificial intelligence to decide well using the boundless approach. We would also be wise to begin to cooperate with these potential people by building a culture that they would want to join."

Chapter 8, Eudaemonia, third paragraph

Changed "In The Republic, Plato" to "Plato" in the first sentence.

Chapter 8, Eudaemonia, third paragraph, first footnote

"6 Near the end of Book IX his Plato provided us with a boundless view of governing our minds well: Socrates describes the human psyche as consisting of a hydra, a lion, and a human. Inside this human part is a psyche consisting of a hydra, a lion, and a human. Inside this human part is a psyche consisting of a hydra, a lion, and a human. And so on to infinity. Our hydra parts are ruled by desire, our lion parts by spirit, and our human parts by reason. We refine reason by having our human parts train our lion parts to control our hydra parts. In likening governing our minds well to governing ourselves well, Plato also provided us with a bounded view of governing our minds well: In an ideal state all people work together for the good of the state. Similarly, in an ideal mind all parts work together for the good of the person. As we have seen, we ought to take the boundless view: In an ideal state, all people work together in deciding well. Similarly, in an ideal mind all parts work together in deciding well."

was changed to:

"6 Near the end of Book IX of *The Republic*, Plato provided us with a boundless view of governing our minds well: Socrates describes the human psyche as consisting of a hydra, a lion, and a human. Inside this human part is a psyche consisting of a hydra, a lion, and a human. Inside this human part is a psyche consisting of a hydra, a lion, and a human. And so on to infinity. Our hydra parts are ruled by desire, our lion parts by spirit, and our human parts by reason. We refine reason by having our human parts train our lion parts to control

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our hydra parts. In likening governing our minds well to governing ourselves well, Plato also provided us with a bounded view of governing our minds well: Just as in an ideal state all people work together for the good of the state, in an ideal mind all parts work together for the good of the person. As we have seen, we ought to take the boundless view: Just as in an ideal state all people work together in deciding well, in an ideal mind all parts work together in deciding well."

Appendix A, introduction, fourth from the last paragraph

Changed "circle" to "circle with a vertical line segment that connects the points on the polygon directly above and below the center of its circumscribing circle" in the third sentence.

Changed "first transformation process and Y2 in the second process" to "first process and Y2 in the second" in the second sentence of the footnote.

Appendix A, introduction, seventh paragraph

Changed "We would also need to program" to "Programming our generating process also calls for devising" in the first sentence.

Changed "figures rather than as strings of characters (letters and numbers)" to "figures" in the second sentence.

Appendix A, Ideal Forms, first paragraph, footnote

Changed "This is a matter of" to "We do so by" in the first sentence.

Appendix C, Black Clouds in Theology, second paragraph, footnote

Changed "it" to "this letter" in the last sentence.

Changes in Version 2014.04.15

Chapter 1, Ever More Complete Boundless Models, last paragraph

"We may call this complex approach to deciding well the boundless approach deciding well, or simply the boundless approach. We may also call the complex view of this approach to deciding well the boundless view of deciding well, or simply the boundless view."

was moved to the end of the The Truth and Wisdom subsection.

Chapter 8, Eudaemonia, third paragraph, last footnote, last two sentences

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"Deciding well calls for the serenity to accept the things we cannot change, the courage to change the things we can, and the wisdom to know the difference. As the personal lives of Georg Cantor and Kurt Gödel attest, it calls for *not* losing oneself to a good attending spirit."

were changed to:

"As recovering addicts of all kinds can attest, deciding well calls for the serenity to accept the things we cannot change, the courage to change the things we can, and the wisdom to know the difference. Knowing the science of science is for everyone; knowing the whole of science is for no one. We put our faith in enlightened self-interest, not in philosopher kings."

Chapter 8, Eudaemonia, last paragraph

"Although complete knowledge of how best to decide well will always exceed our grasp, we ought to reach for it. We ought to pursue Wisdom."

was deleted.

Appendix A, Ideal Forms, last paragraph, footnote

Replaced the link to Gödel's unpublished paper on Marxist.org website, which may not be legal, with a link to Scribd.com. Removed second reference.

Appendix C, A Boundless View of the Whole, first paragraph, fifth sentence

Inserted a paragraph break.

Appendix C, The Role of Julius II, fourth paragraph

"Reinforcing the claim that the authors would have Julius II become an ever better jurist rather than ever more Christlike is the figure of Pope Gregory I on the theology wall (to the far left in the altar image above). Rather than reading the book he holds, Gregory I, whose visage is that of a beardless Julius II, looks into the space between the Holy Ghost and the monstrance on the altar."

was inserted after the first paragraph and changed to:

"Reinforcing the claim that Julius II ought to manage these conflicting goals is the figure of Pope Gregory I, whose visage is that of a beardless Julius II, to the far left in the altar image above. Rather than reading the book he holds, Gregory I looks into the space between the Holy Ghost and the monstrance on the altar."

Appendix C, The Role of Julius II, fifth paragraph

Changed "Further reinforcing this claim" to "Reinforcing the claim that Julius II ought to become an ever better jurist rather than ever more Christlike" in the fifth sentence.

Change Archive for 2014

Chapter 1, *Imagining the Designer*, fourth paragraph

Changed "on a gold field, perhaps influenced by the recently discovered grotesque figures from Nero's palace" to "(perhaps influenced by the recently discovered figures from Nero's long-buried palace) on a gold field" in the fifth sentence.

Appendix C, The Problem with Heraclitus, last three paragraphs

"What problem does pure rationality raise in the mind of this brooding lover of Wisdom who famously claimed that we cannot step into the same river twice? From the view of the room as a whole, to ask this question is to answer it: Pure rationality is the wrong tool for deciding well. Far better is the complex reason of Plato and Aristotle.

"Why did Raphael go to such great lengths to add this figure? To begin to answer this question we need to consider how this addition changed the fresco. The block on which Heraclitus both writes and leans has a two-point perspective that does not relate to the single-point perspective of the original fresco on the philosophy wall. From this we can learn at least two things: First, Raphael believed he needed more than one view to get his message across. Second, the figure of Heraclitus has special significance.

"What might this significance be? In adding the figure of Heraclitus, Raphael visually linked the symbol of reason beneath the feet of Heraclitus to the symbol of reason slightly above his head. Using this link we can easily imagine replacing each of the squares in the first symbol with the second symbol:

[Three-level symbol of reason of Plato and Aristotle]

Using this self-similar image as a model, we can imagine a symbol of deciding well using the complex reason of Plato and Aristotle:

[Infinite symbol of the reason of Plato and Aristotle]

Compare this symbol of deciding well to Leonardo da Vinci's Vitruvian Man:

[Image of Vitruvian Man]

The first relates to the *philosophy* of Plato and Aristotle. The second relates to the *sophistry* of Protagoras and Vitruvius.¹⁰ Raphael appears to have added the figure of Heraclitus in order to reinforce the message that deciding well calls for more than rationality."

"10 From the boundless view, both images are also symbols of squaring the circle. As we saw in the third chapter, in overcoming the constraints of calculating π to a practically infinite number of decimal places, the boundless approach is better than either the engineering approach (using the best currently known means) or the modern evolutionary approach (waiting for a feasible means to evolve)."

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were changed to:

"What problem does pure rationality raise in the mind of this brooding lover of Wisdom who famously claimed that we cannot step into the same river twice? From the view of the room as a whole, to ask this question is to answer it: Deciding well calls for more than pure rationality; it calls for the complex reason of Plato and Aristotle.

"Reinforcing this claim, the two-point perspective of the block on which Heraclitus writes clashes with the one-point perspective of the rest of the fresco. Adding this perspective made the perspective of the whole more than rational.

"Further reinforcing this claim, the figure of Heraclitus visually links the symbol of reason beneath his feet to that slightly above his head. Using this link we can imagine replacing each of the squares in the first symbol with the second symbol:

[Three-level symbol of reason of Plato and Aristotle]

Compare this self-similar image to Leonardo da Vinci's *Vitruvian Man*:

[Image of Vitruvian Man]

Both are symbols of reason.¹⁰ The first relates to the *philosophy* of Plato and Aristotle; the second to the *sophistry* of Protagoras and Vitruvius. The first portrays endless renaissance; the second our modern age."

"10 Both are also symbols of squaring the circle. As we saw in the third chapter, the boundless approach to calculating π to a sextillion decimal places is better than either the engineering approach (using the best currently known means) or the modern evolutionary approach (waiting for a feasible means to evolve)."

Changes in Version 2014.04.17

Entire document

Changed title from "Boundless Pragmatism, An Invariant Strategy for Deciding Well" to "Boundless Reason, A Universal Strategy for Deciding Well" in the entire document.

Chapter 8, Three Types of Reason, third paragraph, footnote

Changed "boundless pragmatism" to "boundless reason" in the last sentence.

Chapter 8, Eudaemonia, last paragraph, last footnote

Changed "self-interest" to "self-interest and cooperation" in the last sentence.

Change Archive for 2014

Appendix C, Imagining the Designer, fourth paragraph, second sentence

"For the octagon, circles, squares, and tops of the arches, you used surreal forms (perhaps influenced by the recently discovered figures from Nero's long-buried palace) on a gold field."

was changed to:

- "For the octagon, circles, squares, and tops of the arches, you used surreal forms on a gold field."
- "8 These surreal forms may have been influenced by the recently discovered "grotesque" figures from the "grottos" of Nero's long-buried palace. From the modern view of psychologist Carl Jung, these figures are symbols from the unconscious. From the boundless view, whether such symbols are cultural artifacts or something more than cultural artifacts is a matter of faith rather than of reason."

Changes in Version 2014.04.18

Acknowledgments, third paragraph, second sentence

Inserted the previously deleted sentence:

"For a third of a century, Fred was extremely generous with his most precious resource, his time."

Chapter 7, A Normal Anomaly, second paragraph, first footnote, last sentence

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"A video of this experiment is available online at <a href="http://www.youtube.com/watch?v=yFYBY_YUH5I">http://www.youtube.com/watch?v=yFYBY_YUH5I</a> (19 November 2013)."
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was changed to:

"A video of the experiment described in this paper is available online at http://www.youtube.com/watch?v=yFYBY YUH5I> (19 November 2013)."

Chapter 8, Three Types of Reason, third paragraph, footnote

Italicized the pledge in the last sentence.

Chapter 8, Three Types of Reason, fourth paragraph, last footnote

Changed "prove" to "to prove" in the last sentence.

Change Archive for 2014

Chapter 8, Eudaemonia, last paragraph, last footnote, last three sentences

"As recovering addicts of all kinds can attest, deciding well calls for the serenity to accept the things we cannot change, the courage to change the things we can, and the wisdom to know the difference. Knowing the science of science is for everyone; knowing the whole of science is for no one. We put our faith in enlightened self-interest and cooperation, not in philosopher kings."

was changed to:

"Knowing the science of science is for everyone; knowing the whole of science is for no one. We put our faith in enlightened self-interest, cooperation, and liberty; not in the folly of people who pretend to be philosopher kings; not in people who deny that deciding well calls for the serenity to accept the things we cannot change, the courage to change the things we can, and the wisdom to know the difference."

Changes in Version 2014.04.22

Appendix C, The Role of Julius II, first paragraph

Changed "(IV LI VS)" to "(IV LI VS inside the white rectangle)" in the second sentence.

(Added white rectangle to the referenced image.)

Appendix C, The Role of Julius II, first paragraph

Changed "wall" to "wall (inside the white rectangle)" in the second sentence.

(Added white rectangle to the referenced image.)

Changes in Version 2014.04.24

Chapter 1, Boundless Models, second paragraph

To conform to Kindle formatting rules governing normal paragraphs, removed italics from the first two sentences:

"In theory, we can solve the problem of bounds by building models that only blind us to problems that we would be foolish to choose. In practice, we do not have the knowledge to build such models."

Change Archive for 2014

Chapter 3, Overcoming Constraints in Deciding Well, last paragraph, footnote

Changed "boundlessly pragmatic" to "boundless" in the last sentence.

Chapter 3, Public Entropy, third paragraph, footnote

Changed "boundlessly pragmatic" to "boundless" in the seventh sentence.

Chapter 3, A Boundlessly Pragmatic Interpretation of Quantum Mechanics, title

Changed title to "A Boundless Interpretation of Quantum Mechanics."

Chapter 4, Testing Boundless Pragmatism, title

Changed title to "Testing the Boundless Approach."

Chapter 8, Three Types of Reason, last paragraph

Changed "boundlessly pragmatic" to "boundless" in the third sentence.

Appendix A, introduction, ninth paragraph, footnote

Changed "pragmatic" to "reasonable" in the last sentence.

Changes in Version 2014.04.30

Acknowledgments, fifth paragraph

Changed "1980s" to "1980s," in the first sentence.

Changed "others" to "others learned" in the third sentence.

Acknowledgments, last paragraph

Changed "years" to "years," in the first sentence.

Preface, fourth paragraph, second sentence

"These constraints concern all three steps in this decision cycle: (1) overcoming constraints in finding problems to solve helps us become ever more effective in deciding well; (2) overcoming constraints in solving given problems helps us become ever more efficient in solving given problems; and (3) overcoming constraints in learning from experience helps us

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become ever wiser (ever more effective in deciding well and ever more efficient in solving given problems)."

was changed to:

"Overcoming constraints in finding problems to solve helps us become ever more effective in deciding well; overcoming constraints in solving given problems helps us become ever more efficient in solving given problems; and overcoming constraints in learning from experience helps us become ever wiser."

Chapter 1, Ever More Complete Boundless Models, third paragraph

Changed "living and working together well, which is also the boundless end of cooperating well and the boundless end of governing ourselves well, *Justice*" to "governing ourselves well (cooperating well in living well) *Justice*" in the second to last sentence.

Chapter 1, Ever More Complete Boundless Models, last paragraph

Changed "factor we add" to "factor that we add" in the first sentence.

Chapter 3, A Boundless Interpretation of Quantum Mechanics, eighth paragraph, last footnote

Changed "there exist no people from other planets who are currently willing" to "no extraterrestrial people who are currently both able and willing" in the fourth sentence.

Chapter 3, The Elephant in the Room, first paragraph

Changed "as we know it" to "(as we currently know it)" in the fourth sentence.

Chapter 4, introduction paragraph

Changed "Albert Einstein told us that if" to "If" in the first sentence.

Chapter 4, Recursivity, first paragraph, first two sentences

"There exists a two-way relation between the world and the descriptions we use to guide our actions: We base these descriptions on the world."

were changed to:

"We use descriptions of the world to guide our actions."

Chapter 4, Academic Fields, third paragraph

Changed "and through this pursuit" to "and, through this pursuit," in the last sentence.

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Chapter 5, Promote Savings for Welfare, first paragraph

Changed "is knowing" to "concerns knowing" in the last two sentences (2 occurrences).

Chapter 6, Heroic Death, last paragraph

Changed "ourselves and others" to "ourselves" in the first sentence.

Chapter 6, A Common Boundless End, last paragraph

Changed "one and the" to "the" in the first sentence.

Chapter 7, The Scope of Strategy, first paragraph

Changed "competitors" to "competitors decide" in the second to last sentence.

Chapter 7, Boyd's Grand Strategy, last paragraph

Changed "Boyd's grand strategy is bounded, hence incomplete" to "nationalism bounds Boyd's grand strategy" in the last sentence.

Chapter 7, The Grandest Possible Strategy, first paragraph, footnote

Deleted "and how these laws may help us learn to live ever more wisely" from the third sentence.

Chapter 8, Three Types of Reason, third paragraph, footnote, second sentence

"Dewey was greatly influenced by Edward Bellamy's utopian novel *Looking Backward*, 2000 to 1887, which advocated nationalizing all industry and drafting all working-age citizens of the United States into an "industrial army.""

was changed to:

"Dewey claimed that Edward Bellamy's utopian novel *Looking Backward*, 2000 to 1887, which advocated nationalizing all industry and drafting all working-age citizens of the United States into an "industrial army," greatly influenced him."

Chapter 8, Eudaemonia, last paragraph, first footnote, sixth sentence

"Our hydra parts are ruled by desire, our lion parts by spirit, and our human parts by reason."

was changed to:

"Desire rules our hydra parts, spirit our lion parts, and reason our human parts."

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Chapter 8, Eudaemonia, last paragraph, first footnote

Changed "one and the" to "the" in the last sentence.

Appendix A, The Big Picture, second paragraph

Changed "Whoever they are, it appears that they" to "These test designers appear to" in the last sentence.

Appendix C, On the Philosophy Wall, first paragraph

Changed "up to" to "to" in the third sentence.

Appendix C, On the Jurisprudence Wall, first paragraph

Changed "Justinian, Solomon" to "Justinian (toward the philosophy wall), Solomon" in the fifth sentence.

Changed "Gregory IX, Adam" to "Gregory IX (toward the philosophy wall), Adam" in the last sentence.

Appendix C, An Esoteric Strategy for Deciding Well, last paragraph

Changed "were meant to know" to "knew" in the third sentence.

Appendix C, A Boundless View of the Whole, second paragraph

"The second thing to notice are the fields formed by the plain borders. With the exception of the borders along the non-parallel walls and the cursive borders within the large square with the crossed-keys symbol of the papacy at its center, these borders are either parallel or perpendicular to the two parallel walls. Most of these parallel and perpendicular borders form rectangles that contain locally coherent geometric forms. The major exception is the large square containing the symbol of the papacy at its center, which contains more complex geometric forms. From its position relative to the doors, which are on either side of the back wall, this was likely the main work area in the room:

[photograph of floor]

"With the exception of a symbol that crosses a border midway along the passage connecting to two doors at the back of the room, the fields of forms defined by the rectilinear borders do not visually relate to each other. What coherence the floor as a whole has comes from the borders rather than the internal forms of the fields."

"6 From the boundless view, this work area represents a sophistic model for finding problems to solve in carrying out the mission of Julius II. Given that the crossed-keys symbol at its center matches the symbol at the center of the ceiling, this mission appears to be the same as

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the mission depicted in the room as a whole. If so, the four disparate fields defined by curvilinear borders are likely the same fields depicted on the four walls of the room. The curvilinearity of these borders represents the pretense of rationality found in all formal belief systems that pretend to the Truth."

was changed to:

"The second thing to notice are the plain borders. With the exception of the plain cursive borders within the large square with the crossed keys at its center and the borders along the non-parallel walls, these borders are either parallel or perpendicular to the two parallel walls:

[photograph of floor]

"Most of these parallel and perpendicular borders form rectangles that contain locally coherent geometric forms. With the exception of a symbol that crosses a border midway along the passage connecting to two doors at the back of the room, the fields of forms defined by the rectilinear borders do not visually relate to each other. What coherence the floor as a whole has comes from the borders rather than the internal forms of the fields."

"6 From its position relative to the doors, which are on either side of the back wall, this was likely the main work area in the room. From the boundless view, it represents a sophistic model for finding problems to solve in carrying out the mission of Julius II. Given that the crossed-keys symbol at its center matches the symbol at the center of the ceiling, this mission appears to be the same as the mission depicted in the room as a whole. If so, the four disparate fields defined by curvilinear borders are likely the same fields depicted on the four walls of the room. The curvilinearity of these borders represents the pretense of rationality found in all formal belief systems that pretend to the Truth."

Appendix C, The Role of Julius II, last paragraph, footnote

Changed "the designer" to "Daedalus, the designer" in the last sentence.

Appendix C, Imagining the Designer, first paragraph

Changed "process" to "process," in the fourth sentence.

Appendix C, Imagining the Designer, third paragraph

Changed "reveries" to "reveries," in the first sentence.

Appendix C, Imagining the Designer, fourth paragraph, first footnote, sixth sentence

"These surreal forms may have been influenced by the recently discovered "grotesque" figures from the "grottos" of Nero's long-buried palace."

was changed to:

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"Recently discovered "grotesque" figures from the "grottos" of Nero's long-buried palace may have influenced these surreal forms."

Appendix C, Imagining the Designer, fourth paragraph, first footnote

Changed "a matter" to "currently a matter" in the last sentence.

Appendix C, Imagining the Designer, last paragraph

Changed "ceiling" to "ceiling," in the first sentence.

Appendix C, The Problem of Heraclitus, third paragraph

Changed "whole" to "fresco as a whole" in the last sentence.

Appendix C, The Problem of Heraclitus, last paragraph

Changed "link" to "link," in the second sentence.

Changes in Version 2014.05.07

Acknowledgments, sixth paragraph, fifth sentence

"This became the basis for a paper that I delivered to the International Schumpeter Society conference in Athens in the fall of 1993."

were changed to:

"The concept of efficiency in consumption at the core of this paper led me to write a paper on modern monetary policy, which I delivered to the International Schumpeter Society conference in Athens in the fall of 1993."

Preface, last paragraph

Changed "footnotes" to "endnotes" in the second sentence.

Chapter 1, introduction, last paragraph, last footnote

Added video link to Bruner and Postman reference in the online (abridged) version. This video link is the same as that in the seventh chapter reference, which is not included in the abridged version.

Chapter 1, The Truth and Wisdom, fourth paragraph, footnote

Change Archive for 2014

Changed "blinds us to most facts about potential states of the world, particularly" to "tends to blind us" in the third sentence.

Chapter 1, Boundless Models for Deciding Well, last paragraph, footnote

Changed "pursue Wisdom" to "pursue Wisdom well" in the first sentence.

Chapter 2, *Pleasure and Joy*, second to last paragraph, last two sentences

"Pleasure and joy can mask not only the pain of unsatisfied needs that we are not able to satisfy but also those that we are able to satisfy. Rather than helping us to satisfy our needs well, they can lead us to fools' paradises."

were changed to:

"Pleasure can mask the pain of unsatisfied needs that we are able to satisfy. Joy can tempt us to linger in what soon will be fools' paradises. We need wisdom to help us "see" beyond our current feelings and beliefs."

Chapter 2, Three Common Mistakes, last paragraph

Changed "coin" to "stamp for our collection" and "a container of teak" to "the teak in our furniture" in the second sentence.

Chapter 2, Academic Fields, last paragraph

Changed "Natural (invariant) science" to "The whole of science" in the first sentence.

Chapter 4, Refining Finding Problems to Solve, second paragraph

Changed "computers" to "robots" in the third sentence.

Changed "affect" to "change" in the last sentence in the first footnote.

Chapter 4, Refining Finding Problems to Solve, fourth paragraph

Changed "making such trades" to "trading in ways that smooth flow" in the ninth sentence.

Chapter 5, Good Policies, first paragraph

Changed "aphoristic actions" to "laconisms" in the last sentence.

Appendix A, Ideal Forms, first paragraph, last two sentences

Change Archive for 2014

"Because we can never know that we have achieved this end, we can never prove formally that any form for pursuing it is best. The best we can do is to disprove empirically that the form is best."

were changed to:

"Because we can never know that we have achieved this end, we can never prove formally that any form for pursuing it is the ideal form for the task it role it plays in deciding well. The best we can do is to disprove empirically that the form is ideal."

Appendix C, Black Clouds in Theology, last picture

Replaced the altar picture with an picture that did not have the white rectangle highlighting the name of Julius on the front of the altar.

Appendix C, The Role of Julius II, first paragraph

Added a picture of the front of the altar. Deleted the reference to the white rectangle in the text. (See above.)

Appendix C, The Role of Julius II, first paragraph, last three sentences

"In this context, the knot symbolizes the problem of managing the conflicting goals of the two groups of church doctors. Those on the left promote known ecclesiastic forms. Those on the right discover better ecclesiastic forms."

were changed to:

"This knot symbolizes the problem of managing church doctors who promote known ecclesiastic forms and those that discover better ecclesiastic forms."

Changes in Version 2014.05.10

Acknowledgments, entire section

Moved this section in front of the Table of Contents in the Kindle and CreateSpace versions.

Acknowledgments, second paragraph

Changed "three were" to "two were" in the first sentence.

Changed "All three" to "Both" in the last sentence.

Change Archive for 2014

Acknowledgments, second paragraph, second to last sentence

"George Leland Bach taught a Socratic course in ethics that became the model for the American Assembly of Collegiate Schools of Business."

was moved to the end of the fifth paragraph and changed to:

"George Leland Bach, another son of a Grinnell banker, taught a Socratic course in ethics that became the model for the American Assembly of Collegiate Schools of Business."

Acknowledgments, sixth paragraph

Changed "after that" to "later" in the sixth sentence.

Preface, seventh paragraph

Removed bold from the x and y variables in the block quote.

Chapter 1, Choosing Frames Well, last paragraph, footnote

Added the sentences:

"For more about Cantor's mental breakdown, as well as that of Kurt Gödel, watch David Malone's BBC documentary *Dangerous Knowledge*. Note that boundless reason belies the opening claim that "beneath the surface of the world are the rules of science, but beneath them there is a far deeper set of rules, a matrix of pure mathematics, which explains the nature of the rules of science, and how it is we can understand them in the first place.""

Chapter 1, Temporal and Normative Frames, last paragraph, footnote

Changed "Note that from" to "From in the first sentence.

Chapter 3, Public Entropy, first paragraph, footnote

Changed "Zero" to "The transcendental end of zero" in the first sentence.

Chapter 5, Good Policies, first paragraph

Changed "laconisms" to "slogans" in the last sentence.

Chapter 7, OODA Loop Analysis, fourth paragraph, footnote

Added slide reference number (141).

Chapter 8, last paragraph, last footnote

Change Archive for 2014

Changed "kings; not in people who deny that deciding well calls for the serenity to accept the things we cannot change, the courage to change the things we can, and the wisdom to know the difference" to "kings" in the last sentence.

Appendix A, introduction, seventh paragraph, last sentence

"As we shall see, such a superficial approach not only wastes programming and computing resources but also tends to blind us to other possible solutions."

was deleted.

Appendix A, introduction, eighth paragraph

Changed "efficiency/blindness" to "efficiency" in the last sentence.

Appendix A, introduction, ninth sentence, footnote

Added the sentence:

"It is no wonder that this temporal scheme tends to blind us to this solution."

Appendix A, Ideal Forms, last paragraph

Changed "the boundless end of deciding well" to "Wisdom" in the last sentence.

Appendix C, introduction, first paragraph

Changed "reasonable relations" to "relations" in the first sentence.

Appendix C, On the Poetry Wall, first paragraph

Changed "version of both themes" to "combination of the eight-part ceiling theme and the two-part reason theme" in the first sentence.

Appendix C, An Esoteric Strategy for Deciding Well, first paragraph

Changed title to "An Esoteric Strategy."

Appendix C, An Esoteric Strategy, first paragraph

Changed "Plato and Aristotle" to "pursuing Wisdom" in the first sentence.

Appendix C, An Esoteric Strategy, last paragraph

Changed "only a few people knew of it" to "its authors purposely kept it secret" in the first sentence.

Change Archive for 2014

Appendix C, Black Clouds in Theology, third paragraph

Changed "deciding well" to "pursuing Wisdom" in the first sentence (2 occurrences).

Appendix C, The Problem of Heraclitus, last paragraph

Changed "self-similar" image" to "self-similar image" in the third sentence.

Changes in Version 2014.05.15

Entire document

Removed spaces around em-dashes throughout (many occurrences).

Acknowledgments, second paragraph

Changed "Directorate during the Second World War" to "Directorate" in the third sentence.

Preface, third paragraph

Removed step numbers and replaced semicolons with commas in the last sentence of the block quote.

Chapter 2, Tools for Pursuing Pleasure and Joy, first paragraph

Changed "sattva (lucidity), rajas (passion), and tamas (dark inertia)" to "lucidity (sattva), passion (rajas), and dark inertia (tamas)" in the second sentence.

Chapter 3, Three Approaches to Policy, last paragraph

Changed "public pursuit of Wisdom" to "the virtuous circle of good people and good products" in the last sentence.

Chapter 5, Pursue Boundless, Not Temporal Order, title

Changed "Temporal" to "Current" in the title.

Chapter 5, Eudaemonia, last paragraph, first footnote.

Replaced commas with semicolons in the sixth sentence (2 occurrences).

Appendix A, introduction, third paragraph

Change Archive for 2014

Changed "circumscribing circle" to "circle" in the last sentence.

Appendix A, The Big Picture, third paragraph

Changed "polygon (modified Schläfli notation)" to "polygon" in the first line of the block quote.

Appendix C, A Boundless View of the Whole, second paragraph, first footnote

Changed "a sophistic" to "an apparently rational" in the first sentence.

Appendix C, The Problem of Heraclitus, third paragraph

Changed "this" to "the resulting" in third first sentence.

Appendix C, The Problem of Heraclitus, last paragraph, first footnote

Changed "Note that Roman" to "Roman" in the first sentence.

Changes in Version 2014.05.17

Chapter 1, Choosing Frames Well, last paragraph, footnote, last two sentences

"For more about Cantor's mental breakdown, as well as that of Kurt Gödel, watch David Malone's BBC documentary *Dangerous Knowledge*. Note that boundless reason belies the opening claim that "beneath the surface of the world are the rules of science, but beneath them there is a far deeper set of rules, a matrix of pure mathematics, which explains the nature of the rules of science, and how it is we can understand them in the first place.""

were deleted.

Chapter 2, introduction, first paragraph

Changed "In contrast, from" to "From" in the third sentence.

Chapter 2, Tools for Pursuing Pleasure and Joy, last paragraph

Changed "In contrast, from" to "From" in the seventh sentence.

Chapter 2, Trade, last paragraph

Changed "In contrast, from" to "From" in the second sentence.

Change Archive for 2014

Chapter 2, Production, first paragraph

Changed "In contrast, from" to "From" in the fourth sentence.

Chapter 3, Overcoming Constraints in Deciding Well, first paragraph

Changed "modern counterpart to the classical" to "mathematical counterpart to the geometric" in the first sentence.

Chapter 3, Public Entropy, third paragraph, footnote

Changed "to decide how to act" to "in deciding well" in the first sentence.

Changed "produce" to "obtain" in the sixth sentence.

Chapter 3, A Boundless Interpretation of Quantum Mechanics, fourth paragraph, footnote, third sentence

"Note that from the boundless view we ought to act as if free will exists:"

was changed to:

"From the boundless view, we ought to view the question of whether free will exists as an experiment:"

Chapter 4, Self-Similarity, first paragraph, footnote

Changed "the relations" to "relations" and "the causes" to "causes" in the first sentence.

Changed "the causes" to "causes" in the second sentence.

Changed "In contrast, from" to "From" in the fifth sentence.

Changed "In other words, more" to "More" in the eighth sentence.

Chapter 4, Academic Fields, second paragraph

Changed "In contrast, from" to "From" in the third sentence.

Chapter 4, Modern Policy Mistakes, third paragraph, footnote

Changed "In contrast, from" to "From" in the last sentence.

Chapter 6, Lower Trade Barriers, first paragraph, footnote

Changed "Note that the" to "The" in the first sentence.

Change Archive for 2014

Chapter 6, Being Needs, last paragraph, footnote

Changed "Note that Maslow" to "Maslow" in the first sentence.

Chapter 7, Boyd's Grand Strategy, first paragraph, footnote

Changed "Note that Boyd" to "Boyd" in the first sentence.

Chapter 8, Eudemonia, last paragraph, last footnote, last two sentences

"Knowing the science of science is for everyone; knowing the whole of science is for no one. We put our faith in enlightened self-interest, cooperation, and liberty; not in the folly of people who pretend to be philosopher kings."

were changed to:

"From the boundless view, knowing the science of science is for everyone; knowing the whole of science is for no one. We put our faith in the virtuous circle of good people and good products, in enlightened self-interest, cooperation, and freedom, not in people who pretend to be philosopher kings."

Appendix A, Ideal Forms, last paragraph, footnote, end

Added the sentence:

"To learn more about his illness, as well as that of Georg Cantor, watch the BBC documentary *Dangerous Knowledge*, which is available online in various locations."

Appendix C, On the Theology Wall, first paragraph, last two sentences

Changed "Ghost, the mysterious divine element within ourselves" to "Spirit" in the third sentence.

Changed "this element" to "the Holy Spirit" in the last sentence.

Appendix C, The Role of Julius II, second paragraph

Changed "Ghost" to "Spirit" in the first sentence.

Appendix C, The Problem of Heraclitus, last paragraph

Changed "imagine" to "easily imagine" in the second sentence.

Change Archive for 2014

Changes in Version 2014.05.20

Chapter 1, Temporal and Normative Models, last paragraph, footnote

Changed "Ever Leaner" to "Lean" in the first sentence.

Chapter 5, A Sovereign Story for Deciding Well, last paragraph

Changed "other" to "other should" in the fourth sentence.

Appendix A, introduction, fourth paragraph

Changed "its circumscribing circle" to "its circle" in the third sentence.

Appendix A, introduction, ninth paragraph

Changed "its circumscribing circle" to "its circle" in the third sentence.

Appendix A, The Big Picture, Second Case for f(x) block quote

Changed "its circumscribing circle" to "its circle" in the first sentence.

Appendix A, The Big Picture, second to last paragraph

Changed "finding people who reason well" to "seeking these people" in the second sentence of the block quote.

Appendix B, title

Changed title from "Ever Leaner Production" to "Lean Production."

Appendix C, On the Jurisprudence Wall, first paragraph

Changed "(toward the philosophy wall)" to ", which is the corner between the philosophy and jurisprudence walls," in the fifth sentence.

Changed "(toward the theology wall)" to ", which is the corner between the jurisprudence and theology walls," in the last sentence.

Appendix C, The Problem of Heraclitus, first paragraph

Changed "cartoon" to "template drawing (cartoon)" in the second sentence.

Appendix C, The Problem of Heraclitus, last paragraph, last two sentences

Change Archive for 2014

"The first relates to the *philosophy* of Plato and Aristotle; the second to the *sophistry* of Protagoras and Vitruvius. The first portrays endless renaissance; the second our modern age."

were changed to:

"The first relates to the *philosophy* of Plato and Aristotle; the second relates to the *sophistry* of Protagoras and Vitruvius. The first renders endless renaissance; the second depicts the cause of our modern confusion of ends."

Changes in Version 2014.05.24

Preface, third paragraph, block quote

"Deciding well is a matter of repeatedly applying a sequence of decision-making steps such that the results of one cycle become the basis of the next cycle on any given level of abstraction. The basic steps in this recursive process are choosing a temporally bounded problem to solve, attempting to solve this problem well, and learning from the experience."

was changed to:

"Deciding well is a matter of repeatedly applying a sequence of three basic steps. These three steps are choosing a temporally bounded problem to solve, attempting to solve this problem well, and learning from the experience."

Preface, fifth paragraph

Changed "finding" to "choosing" in the first sentence.

Chapter 5, Good Policies, first paragraph

Changed "slogans" to "maxims" in the last sentence.

Chapter 8, Eudaemonia, last paragraph, first footnote

Changed "As we have seen, we" to "We" in the second to last sentence.

Chapter 8, Eudaemonia, last paragraph, last footnote

"A strategy for deciding well that does not describe governing our minds well is dangerously incomplete. Instead of such a description, I offer three maxims from the Delphic temple of Apollo: "know thyself," "nothing in excess," and "make a pledge and mischief is nigh." From the boundless view, knowing the science of science is for everyone; knowing the whole of science is for no one. We put our faith in the virtuous circle of good people and good

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products, in enlightened self-interest, cooperation, and freedom, not in people who pretend to be philosopher kings."

was promoted to the body of the text and changed to:

"A strategy for deciding well that does not describe governing our minds well is dangerously incomplete. Instead of such a description, I offer three maxims from the Delphic temple of Apollo: "know thyself," "nothing overmuch," and "[make] a pledge, and thereupon perdition." From the boundless view, knowing the science of science is for everyone; knowing the whole of science is for no one. We put our faith in enlightened self-interest, cooperation, and freedom, not in people who pretend to be philosopher kings."

"7 Plato, *Charmides*, trans. W. R. M. Lamb, (164d–165a), available online at http://www.perseus.tufts.edu/hopper/text?doc=Perseus%3Atext%3A1999.01.0176%3Atext%3DCharm.%3Asection%3D164d (24 May 2014). People who find the third maxim from this dialogue on temperance confusing may find understanding in a religious plea known to recovering addicts of many kinds: "Grant me the serenity to accept the things I cannot change, the courage to change the things I can, and the wisdom to know the difference.""

Appendix C, The Forgotten Role of Octagons, second paragraph

Changed "a belief about the relation between mind and matter: Mind sets matter in motion" to "the belief that mind sets matter in motion" in the last sentence.

Appendix C, A Boundless View of the Whole, second paragraph, footnote

Changed "room as a whole" to "ceiling and walls" in the third sentence.

Changed "walls of the room" to "walls" in the fourth sentence.

Changed "The" to "Arguably, the" and "belief systems" to "models" in the last sentence.

Changes in Version 2014.05.28

Title page

Added the Recursionist Economics trademark. Moved copyright information to the footnote area in the HTML version.

Acknowledgments, fifth paragraph

Changed "others learned" to "others did" in the third sentence.

Chapter 1, Temporal and Normative Models, third paragraph

Change Archive for 2014

Changed "might make" to "make" in the all (2 occurrences).

Chapter 1, Temporal and Normative Models, fourth paragraph

Changed "tool setters" to "people" in the last sentence.

Chapter 1, Boundless Models of Deciding Well, second paragraph

Removed italics from the last sentence:

"However, we do have the knowledge to build self-refining models for pursuing this normative end, which is the normative end of deciding well."

Chapter 2, Pleasure and Pain, second to last paragraph

Changed "in what soon will become" to "in" in the third sentence.

Changed "feelings and beliefs" to "circumstances" in the last sentence.

Chapter 2, Tools for Pursuing Pleasure and Joy, third paragraph

Changed "Regardless of whether we choose an active or a contemplative life, we" to "We also" in the first sentence.

Chapter 2, Three Common Mistakes, last paragraph

Changed "So conceived" to "From this mistaken view" in the second sentence.

Chapter 3, Overcoming Constraints in Deciding Well, last paragraph, second sentence

"People who decide well using the boundless approach invent or discover ever better means of calculating more readily than other people invent or discover."

was changed to:

"People who decide well using the boundless approach more readily invent or discover better means of calculating than other people do."

Chapter 3, Public Order, last paragraph

Changed "decide well" to "decide well (using the boundless approach)" in the first sentence.

Chapter 3, Public Entropy, last paragraph

Changed "know" to "learn ever more about" in the first sentence.

Change Archive for 2014

Chapter 4, introduction, first paragraph

"Albert Einstein told us that if we are to understand the whole of science, we need to analyze the nature of everyday thinking. We can do so 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 the process of relating our sense experiences to what we believe we know about the world. This intuitive process defines the universal set of worldly knowledge. In analyzing the world, we refine worldly knowledge by weeding out all worldly knowledge that we cannot express in concepts. What remains is the set of all conceptual descriptions of the world."

was changed to:

"Albert Einstein told us that we ought to analyze the nature of everyday thinking. We can do so 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 the process of relating our sense experiences to what we believe we know about the world. This intuitive process defines the universal set of worldly knowledge.

"In analyzing the world, we refine worldly knowledge by weeding out all worldly knowledge that we cannot express in concepts. What remains is the set of all conceptual descriptions of the world."

Chapter 4, Refining Everyday Thinking, first paragraph

Changed "We may" to "From the boundless view, we" in the first sentence.

Chapter 5, Judge Interventions, first paragraph

Changed "benefit a few people greatly and harm many people only a little" to "greatly benefit a few people by slightly harming many people" in the fifth sentence.

Chapter 5, Promote Savings for Welfare, last paragraph

Changed "to compete against government safety-net programs" to ", which would provide people with useful knowledge for living well that the government cannot provide without creating a state religion" in the last sentence.

Chapter 6 introduction last paragraph

"From the boundless view, we can move ever closer to reconciling these two belief systems by deciding well using a concept of deciding well that recognizes our need to become part of something infinitely greater than ourselves. We can begin by considering Abraham Maslow's humanistic approach to understanding our spiritual needs."

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was appended to the preceding paragraph and changed to:

"From the boundless view, we can begin to reconcile these two belief systems by considering Abraham Maslow's humanistic approach to understanding our spiritual needs."

Chapter 7, The Scope of Game Theory, second paragraph

"From the view of modern game theory, the better solution to this one-time game of nineteen one-time, two-person games is to defect. The reason is that regardless of what the opposing player does, the deciding player is better off by defecting. If the opposing player defects, cooperating yields nothing and defecting yields \$1. If the opposing player cooperates, cooperating yields \$3 and defecting yields \$5. In contrast, Hofstadter suggested that all players consider the symmetry of the game as a whole before they settle on a strategy. Considering the game as a whole, each player can see that all players face the same problem and so should seek the same solution, which is the solution that provides the best payoff to each player. Again, if every player cooperates, each would get \$57, and if every player defects, each would get \$19. From Hofstadter's view, the better solution is to cooperate."

was changed to:

"At issue in this one-time offer is how these twenty experts see it. Would they see it as playing nineteen two-player games or as a single game consisting of nineteen two-player games? If the former, modern game theory tells them to defect. (Regardless of what the opposing player does, the deciding player is better off by defecting.) If the latter, the best solution is for everyone to cooperate."

Chapter 7, An Extraordinary Anomaly, last paragraph, end

Added the sentence:

"The reason of modern game theory (rationality) is the wrong form of reason for helping us find problems to solve."

Chapter 8, Three Types of Reason, third paragraph, footnote, last sentence

Removed the italics from the last sentence:

""I pledge allegiance to my flag and to the principles for which it stands, one people, pursuing Wisdom, with liberty and justice for all.""

Chapter 8, Eudaemonia, last paragraph, footnote, end

Added the following sentence:

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"To learn about how failing to mind this maxim led to the insanity of Georg Cantor and Kurt Gödel, watch the BBC documentary *Dangerous Knowledge*, which is available online in various locations.""

Appendix A, Ideal Forms, first paragraph

Changed "for pursuing it is the ideal form for the task it role it plays in deciding well" to "is best in its role in deciding well" in the third sentence.

Changed "ideal" to "best" in the last sentence.

Appendix A, Ideal Forms, last paragraph, footnote, last sentence

"To learn more about his illness, as well as that of Georg Cantor, watch the BBC documentary *Dangerous Knowledge*, which is available online in various locations.""

was deleted.

Appendix B, introduction, first paragraph

Changed "process" to "two-step process" in the last sentence.

Changes in Version 2014.05.29

These changes were made after examining the first CreateSpace proof. The result is the second CreateSpace proof.

Chapter 1, Steps for Building Boundless Models, second paragraph

Changed "factors of deciding well" to "factors" in the first sentence.

Chapter 1, Steps for Building Boundless Models, third paragraph

Changed "such problems" to "these holes" in the last sentence.

Chapter 3, A Boundless Interpretation of Quantum Mechanics, eighth paragraph, first footnote

Changed "(the use of) money" to "money" in the fifth sentence.

Appendix B, Folding in Processes, third paragraph

Changed "24" to "twenty-four" in the last sentence.

Change Archive for 2014

Appendix B, Temporal Details, first paragraph, footnote, last two sentences

"When Ohno envisioned his means of producing ever more leanly, there were no automated milling machines or robots. This strategy should accommodate additive manufacturing tools and other new technology as easily."

were changed to:

"When Ohno first envisioned his means of producing ever more leanly, there were no industrial robots. This strategy should accommodate additive manufacturing machines as easily as it did robots."

Appendix C, The Forgotten Role of Octagons, second paragraph

Changed "that sets the heavens in motion (*celestial aether*)" to "that moves the heavens" in the second to last sentence.

Appendix C, Imagining the Designer, fourth paragraph, last footnote

Changed "minor" to "secondary" in the fourth sentence.

Changed "major" to "primary" in the last sentence.

Changes in Version 2014.06.02

Preface, second to last paragraph

Changed "conclude this book by describing" to "end this book with" in the last sentence.

Chapter 1, Boundless Models of Deciding Well, fourth paragraph, footnote, last sentence

"As we shall see, this concept emerges from our latent tendency to pursue the boundless end of deciding well."

was changed to:

"For more about this, read the chapter on contemplating well."

Chapter 4, Refining Everyday Thinking, last paragraph

Changed "these multiple-frame models" to "these models" in the third sentence.

Chapter 5, The Explicit Experiment, last paragraph, footnote

Change Archive for 2014

Changed "Widespread violations of" to "Disregard for" in the third sentence.

Chapter 7, A Normal Anomaly, last paragraph, last four sentences

"Another way they do this is to assume that the situation involves recurring games. This excludes all learning except learning from playing the same game more than once. Hofstadter created a game in which there are symmetric games that occur once. Just as a red queen of spades does not fit neatly into a standard deck of cards, Hofstadter's game does not fit neatly into modern game theory."

were changed to:

"Another way they do this is to assume that the situation involves recurring games, games that are symmetric across time. This excludes all learning except learning from playing these symmetric games. In contrast, Hofstadter created a game in which there are symmetric games that occur once. Just as a red queen of spades does not fit neatly into a standard deck of cards, his game does not fit neatly into modern game theory."

Chapter 7, An Extraordinary Anomaly, first paragraph, footnote

Italicized "Metamagical Themas."

Chapter 7, Boyd's Grand Strategy, last paragraph, footnote

Changed "Creation" to "Creation, which is available in the Project White Horse Boyd archive" in the last sentence.

Chapter 7, The Grandest Possible Strategy, first paragraph, footnote

Italicized "Patterns of Conflict."

Chapter 8, Eudaemonia, third paragraph, last footnote

Changed "Wisdom" to "boundless reason" in the fourth sentence.

Chapter 8, Eudaemonia, last paragraph, footnote, last two sentences

"We might begin our answer with a mathematical description of the problem and our solution to it. We begin with a description of the mathematical symbols that we plan to use to describe the pattern we see in the top row:"

were changed to:

"We might begin our answer with a description of the mathematical symbols that we plan to use to describe the pattern we see in the top row:"

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Appendix A, The Big Picture, third paragraph, first two sentences

"People who find the third maxim from this dialogue on temperance confusing may find understanding in a religious plea known to recovering addicts of many kinds: "Grant me the serenity to accept the things I cannot change, the courage to change the things I can, and the wisdom to know the difference." To learn about how failing to mind this maxim led to the insanity of Georg Cantor and Kurt Gödel, watch the BBC documentary *Dangerous Knowledge*, which is available online in various locations."

were changed to:

"People who find the third maxim from this dialogue on temperance confusing may find understanding in the pledges that led to the sad ends of Georg Cantor and Kurt Gödel. They might begin with the BBC documentary *Dangerous Knowledge*."

Appendix A, Ideal Forms, first paragraph

Changed "Whether or not" to "Whether" in the second sentence.

Appendix C, The Forgotten Role of Octagons, second paragraph

Changed "mysterious element that moves the heavens" to "mysterious fifth element that moves the heavens (celestial ether)" in the second to last sentence.

Title Page, introduction, first paragraph (POD version)

Centered and shrank trademark.

Chapter 3, Contemplating the Way Forward paragraph (POD version)

Italicized "normative end" and "transcendental end" in the last sentence. (POD version)

Chapter 7, introduction, first paragraph (POD version)

Italicized "competing well" in the last sentence. (**POD version**)

Chapter 8, introduction, first paragraph (POD version)

Italicized "*reason*" in the last sentence. (**POD version**)

Chapter 8, Eudaemonia, third paragraph (POD version)

Italicized "*Eudaemonia*" in the second sentence. (**POD version**)

Removed italics from "*Eudaemonia*" in the third sentence. (**POD version**)

Change Archive for 2014

Heading References, chapter 1 (POD version)

Italicized "Socrates, Buddha, Confucius, Jesus, The Paradigmatic Individuals."

Heading References, Appendix C (POD version)

Italicized "Theaetetus."

Changes in Version 2014.06.06

Chapter 8, Eudaemonia, third paragraph, first footnote

Changed "refine reason" to "govern our minds well" the sixth sentence.

Appendix A, introduction, first paragraph.

Replaced closing colon with a period. Deleted the last figure (IQ_Example_2a in the HTML version). This "solution" figure was originally an afterthought, hence the 2a designation. Removing it reduced the white space at the bottom of page 65 and improved the page break on page 69 of the POD version. Arguably, it is also unnecessary for most readers.

Appendix C, Black Clouds in Theology, second paragraph, footnote

Replaced the broken hyperlink reference to Columbia with http://www.inters.org/galilei-madame-christina-Lorraine.

Appendix C, The Role of Julius II, third paragraph

Changed "wall dedicated to jurisprudence" to "jurisprudence wall" the second sentence.

Appendix C, The Role of Julius II, fourth paragraph

Changed "wall dedicated to jurisprudence" to "jurisprudence wall" the first sentence.

Appendix C, A Boundless View of the Whole (POD version only).

Moved the floor photograph to the end of its paragraph. This eliminated the white space at the bottom of page 86.

Moved the Julius II ceiling image forward in its paragraph. This eliminated the white space at the bottom of page 88.

Change Archive for 2014

These two changes allowed enlarging the Gordian knot and Marsyas images. They also resulted in a better page break in the Heraclitus section.

Changes in Version 2014.06.07

Changed trademark in the Kindle and POD versions.

Chapter 1, Choosing Frames Well, last paragraph, footnote

Changed "Cantor hypothesized that there were no levels of infinity between those" to "In 1878, Cantor hypothesized that there is no set of numbers having cardinality strictly between that" in the second sentence.

Changed "Paul Cohen later" to "In 1963, Paul Cohen" the fourth sentence.

Appendix C, The Forgotten Role of Octagons, second paragraph

Changed ": the" to ", which are the five" the fourth sentence.

Changed "poetry (Beauty), philosophy (the Truth), jurisprudence (Justice), and theology (Wholeness)" to "poetry, philosophy, jurisprudence, and theology" the ninth sentence.

Changes made on 30 June 2014

Table of Contents (paperback)

Deleted the Table of Contents reference.

Chapter 1, Ever More Complete Boundless Models, third paragraph, footnote, last two sentences

"For this imagined original position of ignorance to produce a *completely just* end, we must consider what end we would want people to pursue 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. From behind this veil of complete ignorance, we owe it to ourselves (ought) to want all people to decide well using the boundless approach to deciding well."

were changed to:

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"For this imagined original position of ignorance to produce a *completely just* end, we must consider what end we ought (owe it to ourselves) to want all people to pursue 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. From behind this veil of complete ignorance, we ought to want all people to decide well using the boundless approach to deciding well."

Appendix A, introduction, second to last paragraph, footnote, last two sentences

"We may choose to approach the programming problem that this infinity creates either arithmetically or geometrically. Here, we take the geometric approach."

were changed to:

"Note that the figure on the bottom row could be a cyclic convex regular polygon having a countably infinite number of sides. Treating this degenerate polygon separately would add little to our understanding of the boundless relation between mathematics and science."

Changes made on 11 July 2014

Appendix A, Ideal Forms, last paragraph, footnote, last two sentences

"From the boundless view, the alternative to proving formally that reason includes intuition is disproving empirically the usefulness in living well of the boundless approach to deciding well. To learn something about how Gödel viewed his problem, read his unpublished 1961 paper "The Modern Development of the Foundations of Mathematics in Light of Philosophy" (*Collected Works, Volume III: Unpublished Essays and Lectures*, Oxford University Press, New York, USA, 1995, pp. 374–387), which is available online at http://www.scribd.com/doc/203369887/K-Godel-The-Modern-Development-of-the-Foundations-of-Mathematics-in-the-Light-of-Philosophy (31 March 2014)."

were changed to:

"From the boundless view, the alternative to proving formally that reason includes intuition is disproving empirically the usefulness in living well of the boundless approach to deciding well, which we do by basing our sovereign rights story on the boundless approach to deciding well."

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Appendix C, The Forgotten Role of Octagons, last paragraph

"Above this octagonal oculus, four putti push up and another four pull down a circle that contains a symbol of the papacy. This Tantalean image represents the mission of learning ever more about the mysterious fifth element and Wisdom."

was deleted.

Appendix C, Black Clouds in Theology, second paragraph, first sentence

"In the scene above the oculus, this dispute concerns an imbalance between poetry and theology."

was changed to:

"Above the octagonal oculus in the ceiling, four putti push up and another four pull down a circle that contains a symbol of the papacy, the mysterious fifth element, and Wisdom. Within this Tantalean scene, the dispute within the Roman Catholic pursuit of Holy Wisdom concerns an imbalance between poetry and theology:"

Also promoted the part of the paragraph after the image to a new paragraph and moved the image up in the end of the second sentence. Adjusted the punctuation at the new end of the second paragraph accordingly.

Appendix C, The Role of Julius II, second image (Kindle and POD versions only)

Added a white rectangle around name of Julius II.

Changed "far left center" to "inside the white rectangle" in the text.

Changes made on 18 July 2014

Appendix C, The Forgotten Role of Octagons, second paragraph, second through fourth sentences

"Surrounding this oculus are four hourglass composites of scenes from Greek mythology and Roman history, which represent fire (top left), earth (top right), water (bottom right), and air (bottom left). Also surrounding it are four circles containing female figures that introduce the subjects of the four walls. These

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subjects are poetry (left), philosophy (bottom), jurisprudence (right), and theology (top):₄"

were changed to:

"Surrounding this octagon are four circles containing female figures that introduce the subjects of the four walls. These subjects are poetry (left), philosophy (bottom), jurisprudence (right), and theology (top). Also surrounding it are four hourglass composites of scenes from Greek mythology and Roman history, which represent fire (top left), air (bottom left), water (bottom right), and earth (top right). Physically beneath these are four imperfect squares containing scenes that concern the subjects of the nearby circles:"

Appendix C, The Forgotten Role of Octagons, second paragraph, fourth through eighth sentences

"This octagon is the result of combining two Platonic themes, which are the five elements (*Timaeus*) and the unity of virtue (*Protagoras*). Together with the central oculus, the four hourglass composites form a cross that aligns with the corners of the room. The center of this cross represents the mysterious fifth element. Together with the oculus, the four circles form a cross that aligns with the walls of the room. The center of this cross represents Wisdom, which is the unity of the boundless ends of poetry, philosophy, jurisprudence, and theology. Reinforcing the relation between the fifth element and Wisdom is the scene in the imperfect square that connects the circles representing poetry and philosophy:"

were promoted to a new paragraph and changed to:

"This octagon is the result of combining two Platonic themes, which are the unity of virtue (*Protagoras*) and the five elements (*Timaeus*). Together with this octagon, the four circles form a cross that aligns with the walls of the room. The center of this cross represents Wisdom, which is the unity of the boundless ends of poetry, philosophy, jurisprudence, and theology. Together with this octagon, the four hourglass composites form a cross that aligns with the corners of the room. The center of this cross represents the mysterious fifth element. Reinforcing the relation between Wisdom and the fifth element is the scene in the imperfect square that connects the circles representing poetry and philosophy:"

Appendix C, The Forgotten Role of Octagons, second paragraph

Changed "female representation" to "representation" in the second to last sentence.

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Appendix C, On the Jurisprudence Well, first paragraph

Changed "an author" to "a giver" in all (2 occurrences).

Appendix C, On the Poetry Well, first paragraph

Changed ""lyre."" to ""lyre" (lira da braccio)." in the second sentence.

Appendix C, An Esoteric Strategy, second paragraph

Changed "its authors" to "the Roman Catholic Church" in the first sentence.

Appendix C, A Boundless View of the Whole, second paragraph

Changed "the exception" to "the major exceptions" and "these borders" to "most of these borders" in the second sentence.

Changed "Most of these" to "These" in the third sentence.

Deleted the fourth sentence: "With the exception of a symbol that crosses a border midway along the passage connecting to two doors at the back of the room, the fields of forms defined by the rectilinear borders do not visually relate to each other."

Changed "fields" to "fields defined by these borders" in the last sentence.

Changes made on 26 July 2014

Chapter 7, Boyd's Grand Strategy, last paragraph, footnote

Changed "OODA loop cycles do" to "Boyd's OODA loop cycle does" in the first sentence.

Appendix C, The Forgotten Role of Octagons, last paragraph

Changed "the mysterious fifth element that moves the heavens (celestial ether)" to "the *celestial aether*, the mysterious fifth element that moves the heavens" in the second to last sentence.

Appendix C, The Role of Julius II, first paragraph

Change Archive for 2014

Changed "church doctors who promote known ecclesiastical forms and those who discover better" to "people who promote traditional ecclesiastical forms and those who invent or discover" in the last sentence.

Changes made on 30 July 2014

Acknowledgments, last paragraph

Changed "superrational" to "(boundlessly) reasonable" in the last sentence.

Appendix A, The Big Picture, block quotes

Italicized variable "n" in all block quotes (13 occurrences).

Changed "x-sided" to "x-sided" in the first block quote.

Changes made on 21 August 2014

Chapter 1, Temporal and Normative Frames, first paragraph, eighth sentence

Added the footnote:

"Consider the first basketball game in the 1986 film *Hoosiers*. Most residents of small town of Hickory believe that the temporal end of winning this game is the highest priority. However, the new basketball coach values the normative end of playing basketball well more highly. Over the course of the film, we learn that this is because he values the (boundless) end of living well even more highly."

Chapter 1, The Truth and Wisdom, last paragraph

Changed "approach deciding well" to "approach to deciding well" in the first sentence.

Appendix C, A Boundless View of the Whole, second paragraph, footnote

Changed "an apparently rational" to "a flattened" in the second sentence.

Change Archive for 2014

Changes made on 2 September 2014

Appendix A, introduction, fourth paragraph

Changed "regular polygon" to "convex regular polygon" in all (3 occurrences).

Appendix A, introduction, third to last paragraph, footnote

Changed "cyclic convex regular" to "convex regular" in the third sentence.

Appendix A, Ideal Forms, last paragraph, footnote, last sentence

"From the boundless view, the alternative to proving formally that reason includes intuition is disproving empirically the usefulness in living well of the boundless approach to deciding well, which we do by basing our sovereign rights story on the boundless approach to deciding well."

was changed to:

"From the boundless view, the alternative to proving formally that reason includes intuition is disproving empirically the usefulness of boundless reason in living well, which we can do by basing our sovereign rights story on it."

Appendix C, Imagining the Designer, fifth paragraph

Changed "an unknotted" to "a less tangled" in the last sentence.

Changes made on 8 September 2014

Acknowledgments, last paragraph

Changed "(boundlessly) reasonable" back to "invariant with respect to beliefs and circumstances" in the last sentence.

Preface, third paragraph, second sentence after the block quote

Added "(based on what ends we currently pursue)" to the effectiveness clause.

Chapter 1, *The Truth and Wisdom*, second paragraph, third through fifth sentences

Change Archive for 2014

"Consider the claims that we might make about the color of marbles in an urn by examining marbles randomly drawn from the urn. If the first twenty marbles we randomly draw from the urn are white, we can reasonably believe that there is a high probability that all of the marbles in the urn are white. If the first two hundred marbles that we pull from the urn are white, we can reasonably believe that there is a very high probability that all of the marbles in the urn are white."

were changed to:

"Consider the claims that we might make about the color of marbles in an urn holding two hundred and fifty marbles. If the first two hundred marbles that we pull from the urn are white, we can reasonably believe that there is a high probability that all of the marbles in the urn are white."

Appendix A, Ideal Forms, first paragraph

"We invent or discover forms (patterns) for pursuing the boundless end of deciding well. Whether these forms are truly independent of our beliefs and circumstances depends on whether they are the best forms for pursuing the boundless end of deciding well. Because we can never know that we have achieved this end, we can never prove formally that any form is best in its role in deciding well. The best we can do is to disprove empirically that the form is best."

"s We do so by weeding out less beautiful forms that accomplish the same function in deciding well as other forms. For example, in the introductory section of this appendix we weeded out the results-oriented means of describing objects (R8, I7, R7, I6, R6, I5, R5, I4, R4, I3, R3) because it was less beautiful than the process-oriented means (N8, Y8, N7, Y7, N6, Y6, N5, Y5, N4, Y4, N3)."

were changed to:

"The best forms (patterns) for deciding well are independent of our beliefs. We discover these forms and invent all other forms. Because we can never know that we have achieved the end of deciding well, we can never prove formally that any form is best in its role in deciding well. However, we can disprove empirically that a form is best by finding more beautiful forms that perform the same roles in deciding well.⁵"

"s For example, in the introductory section of this appendix we weeded out the results-oriented means of describing objects (R8, I7, R7, I6, R6, I5, R5, I4, R4, I3, R3) because it was less beautiful than the process-oriented means (N8, Y8, N7, Y7, N6, Y6, N5, Y5, N4, Y4, N3)."

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Appendix A, Ideal Forms, second paragraph

Changed "seek" to "effectively seek" in the last sentence.

Appendix A, Ideal Forms, last paragraph

Changed "form of science" to "form of science, the science of forms" in the second sentence.

Changes made on 26 September 2014

Chapter 1, Ever More Complete Boundless Models, third paragraph, third through sixth sentences

Changed "Applying this template to our multiple-frame model" to "Using this template" in the third sentence.

Changed "governing ourselves well (cooperating well in living well)" to "living and working with others well" in the fifth sentence.

Chapter 1, Ever More Complete Boundless Models, last paragraph, last four sentences

"With this greater understanding, we can more readily judge whether the temporal problems we are considering are consistent with deciding well. If a temporal problem is consistent with all of our current beliefs about pursuing the boundless factors of deciding well, then it rings true with what we currently believe we know about deciding well. We have found what appears to us to be a beautiful problem to solve. We can then use bounded models that predict well within the domain of this problem to help us judge courses of action."

were changed to:

"With this greater understanding, we can more readily judge whether the temporal problems that we consider ring true with what all that we currently believe we know about deciding well. When one does, we have found what appears to us to be a beautiful problem to solve. We can then use bounded models that predict well within the domain of this problem to help us judge solutions to it."

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Changes made on 2 October 2104

Chapter 4, introduction, fourth paragraph

Changed "evaluate alternatives" to "judge solutions to given problems" in the third sentence.

Chapter 4, introduction, last paragraph

Changed "formulate alternatives" to "find better problems to solve" in the third sentence.

Chapter 4, Self-Similarity, first paragraph

Changed "evaluate alternatives" to "judge solutions to given problems" in the second sentence.

Changed "formulate alternatives" to "find better problems to solve" in the third sentence.

Chapter 6, introduction, last paragraph

Changed "belief systems by considering Abraham Maslow's humanistic approach to understanding our spiritual needs" to "beliefs by finding common ground in our spiritual needs" in the last sentence.

Chapter 6, Being Needs, title

Changed title to "Maslow's Spiritual Needs."

Chapter 6, Mystical Oneness, title

Changed title to "Schweitzer's Mystical Oneness."

Chapter 6, Pursuing Eternal Oneness, last paragraph

Changed "Catholic" to "Roman Catholic" in the last sentence.

Appendix A, Ideal Forms, last paragraph

Changed "best for deciding well" to "perfectly useful in deciding well, hence perfectly beautiful" in the last sentence.

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Appendix C, Black Clouds in Theology, second paragraph

Changed "poetry, theology, jurisprudence, and philosophy" to "poetry (left), philosophy (bottom), jurisprudence (right), and theology (top)" in the second sentence.

Appendix C, *The Role of Julius II*, second photograph (arch above jurisprudence wall)

Replaced the photograph in the published versions with one in which the rectangle no longer touches the border.

Appendix C, The Problem of Heraclitus, last paragraph, first footnote, end

Deleted the clause ", which is available online at http://www.journal.aplimat.com/volume_4_2011/Journal_volume_4/Number_4/ Conversano_Tedeschini.pdf> (19 November 2013)." (This reference is no longer available online.)

Changes made on 10 October 2014

Chapter 1, *Temporal and Normative Frames*, first paragraph, footnote, last sentence

"Over the course of the film, we learn that this is because he values the (boundless) end of living well even more highly."

was changed to:

"Over the course of the film, we learn that this is because he values the end of deciding well even more highly. Note that the jarring juxtaposition of the terms 'temporal ends' and 'normative ends' serves to remind us that the concepts to which they refer lie within the frame of deciding well. As we shall see, we ought to use 'temporal' (temporal positive) models to help us judge solutions to given problems and 'normative' (timeless normative) models to help us find better problems to solve. Using normative models to predict is foolish. Further, using temporal models to decide formally wastes knowledge resources. This is not to say that temporal normative models play no role in deciding well. Deciding well calls for us to use these less thorough means as decision rules. However, it also calls for

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us to decide formally when to use them. In terms made popular by economist Herbert Simon, it calls for us to maximize our satisficing."

Chapter 6, Einstein's Twin Warning, first paragraph

Changed "[modern] reason" to "reason" in the fifth sentence of the Einstein quote.

Changes made on 17 October 2014

Acknowledgments, last paragraph

Changed "believing well, on a floating foundation" to "science" in the third sentence.

Changed "such an "a priori" approach" to "a reasonable approach to science" in the fourth sentence.

Added the sentence: "Such an approach calls for a boundless concept of reason."

Chapter 1, The Truth and Wisdom, fifth paragraph, footnote

Changed "language, which tends to blind us to facts that relate to transcendental ends" to "language" in the fifth sentence of the Einstein quote.

Chapter 1, The Truth and Wisdom, eighth paragraph, footnote

Changed "virtue" to "virtue that emerges from the inexhaustibility of knowledge and the natural need of living beings to live well" in the last sentence.

Changes made on 24 October 2014.

Chapter 1, Seeing Through Apparent Miracles, second paragraph

Changed "describes" to "described" in the first sentence.

Appendix C, The Problem of Heraclitus, first paragraph

Changed "in this area" to "to the right of Parmenides, the pre-Socratic philosopher who denied the world was in flux" in the second sentence.

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Appendix C, The Problem of Heraclitus, third paragraph

Changed "rational" to "rational, more than any Brunelleschi-mirror view of the world" in the last sentence.

Appendix C, The Problem of Heraclitus, last paragraph

Changed "Further reinforcing this claim" to "On a deeper level" in the first sentence.

Changes made on 31 October 2014

Chapter 1, Choosing Frames Well, last paragraph, footnote

"Consider Georg Cantor's continuum hypothesis. In 1878, Cantor hypothesized that there is no set of numbers having cardinality strictly between that of integers and real numbers. Trying to prove or disprove this hypothesis drove him insane. In 1963, Paul Cohen showed that there exist approaches to mathematics in which the continuum hypothesis is true and other approaches in which it is false. From the boundless view of this work, the relevant question is whether these approaches are ideal forms. For more about this, see Appendix A (The Science of Forms)."

was changed to:

"From the boundless view of this work, we owe it to ourselves (ought) to measure what we currently believe we know about deciding well against what we currently believe we need to know in order to decide perfectly. Consider Georg Cantor's continuum hypothesis. In 1878, Cantor hypothesized that there is no set of numbers having cardinality strictly between that of integers and real numbers. Trying to prove or disprove this hypothesis drove him insane. In 1963, Paul Cohen showed that there exist approaches to mathematics in which the continuum hypothesis is true and other approaches in which it is false. We ought to ask ourselves whether these approaches are ideal forms. For more about this, see Appendix A (The Science of Forms)."

Chapter 1, Ever More Complete Boundless Models, third paragraph, footnote

Changed "ought (owe it to ourselves) to" to "ought to" in the third sentence.

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Changes made on 8 November 2014

Chapter 1, Temporal and Normative Ends, first paragraph, footnote

Changed "as decision rules" to "heuristically" in the ninth sentence.

Changed "However, it" to "It" in the second to last sentence.

Chapter 1, *Temporal and Normative Ends*, first paragraph, footnote, fifth through seventh sentences

"As we shall see, we ought to use 'temporal' (temporal positive) models to help us judge solutions to given problems and 'normative' (timeless normative) models to help us find better problems to solve. Using normative models to predict is foolish. Further, using temporal models to decide formally wastes knowledge resources."

were changed to:

"As we shall see, we ought to use 'temporal' (temporal positive) models to help us judge solutions to given problems: Using normative models to predict is foolish. Further, we ought to use 'normative' (timeless normative) models to help us find better problems to solve: Using temporal models to decide formally wastes knowledge resources."

Chapter 1, The Truth and Wisdom, sixth paragraph

Changed "best address this problem" to "can address this framing problem well" in the last sentence.

Chapter 1, Ever More Complete Boundless Models, third paragraph

Replaced the quotes with italics (two sentences).

Chapter 8, Eudaemonia, first paragraph, last sentence

"Both as humans and as people living with humans, we need to consider the human unconscious."

was changed to:

"Both as people and as people living with people, we need to consider our unconscious minds."

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Chapter 8, Eudaemonia, third paragraph, first footnote, sixth through eighth sentences

"In likening governing our minds well to governing ourselves well, Plato also provided us with a bounded view of governing our minds well: Just as in an ideal state all people work together for the good of the state, in an ideal mind all parts work together for the good of the person. We ought to take the boundless view:"

were deleted.

Chapter 8, Eudaemonia, last paragraph, footnote

Changed "maxim from this dialogue on temperance" to "maxim" in the second sentence.

Deleted the last sentence: "They might begin with the BBC documentary *Dangerous Knowledge*."

Added the sentences: "Both found problems that appeared to be solvable (formally proving the continuum hypothesis for both Cantor and Gödel, and formally proving the existence of mathematical intuition for Gödel). Once they had pledged to solve these tantalizing problems, daemons they believed to be truly good would not let them give up. Both lost control of their minds."

Entire Document

Reconciled all three versions against each other. Discovered and repaired Modern Policy Mistakes subsection mistake in the printed version, which involved accidentally moving the subsection from the last section of the fourth chapter (Believing Well) to the introduction of the fifth chapter (Governing Ourselves Well). This mistake occurred the July 31, 2014 version and continued through the October 31, 2014 version.

Changes made on 28 November 2014

Chapter 1, The Truth and Wisdom, fifth paragraph

Changed "source of water" to "source of fresh water" in the third and sixth sentences (2 occurrences).

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Appendix C, The Role of Julius II, first paragraph

Changed "Separating" to "Between" in the first sentence.

Changes made on 5 December 2014

Chapter 1, Temporal and Normative Models, sixth paragraph

Changed "has swept" to "swept" in the last sentence.

Appendix A, introduction, sixth through ninth paragraphs

"We might choose to represent objects based on how they appear. For example, we might represent the regular polygons as the character R and an integer for the number of sides and the irregular polygons as the character I and an integer for the number of sides. The eleven-object sequence starting with an octagon would be R8, I7, R7, I6, R6, I5, R5, I4, R4, I3, and R3. For R-objects, our transformation method would be to change the character to I, subtract 1 from the integer, and return. For I-objects, our method would be to change the character to R and return.

"Programming our generating process also calls for devising methods for displaying objects. Assuming that we want to display our objects as geometric figures, we encounter a small efficiency problem. In order to display irregular polygons properly, the display method for irregular polygons must recreate the internal-language representation of the preceding regular polygon. This efficiency problem is the result of basing our internal language on the results of the process rather than on the process itself.

"We can address this efficiency problem by basing our scheme for representing objects on the process. One way in which we might do so is by replacing our symbol for regular polygons (R) with a symbol for regular polygons that we do not need to transform (N), and by replacing our symbol for irregular polygons (I) with the symbol for regular polygons that we need to transform (Y). Using this scheme, the eleven-object sequence starting with an octagon would be N8, Y8, N7, Y7, N6, Y6, N5, Y5, N4, Y4, and N3. For N-objects, our transformation method would be to change the character to Y and return. For Y-objects, our method would be to change the character to N, subtract 1 from the integer, and return."

were changed to:

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"We might choose to represent these "work-in-process" objects based on their results. For example, we might represent the objects that will become regular polygons with the character R plus an integer for the number of sides. Similarly, we might represent the objects that will become irregular polygons with the character I plus an integer for the number of sides. Using this scheme, the eleven-object sequence starting with an octagon would be R8, I7, R7, I6, R6, I5, R5, I4, R4, I3, and R3.

"Note that displaying irregular polygons calls for calculating the number of sides in the preceding polygon. We might address this small efficiency problem by grouping each irregular polygon with the preceding regular polygon. The display method for each group would use a display method for regular polygons and another for regular polygons that the method transforms into irregular polygons. This grouping approach trades the small efficiency problem for a larger one.

"We can eliminate this larger problem by basing our scheme on regular polygons that do not need transforming (N) and those that do (Y). Using this scheme, the eleven-object sequence starting with an octagon would be N8, Y8, N7, Y7, N6, Y6, N5, Y5, N4, Y4, and N3."

Appendix A, introduction, tenth paragraph, first three sentences

"By making this simple change from appearance to process, we can now conceive of transformation processes that were previously inconceivable. For example, we can now conceive of a solution to the three-object problem that has a left-handed semicircle as its second object. To do so, we replace the function that replaces the rightmost vertex and sides with a function that replaces all points to the right of the center of the circumscribing circle with a vertical line segment that connects the points on the polygon directly above and below the center of its circle."

were changed to:

"By changing our scheme from one based on results to one based on process, we can conceive of more solutions to our three-object problem. For example, we can conceive of a solution that has a left-handed semicircle as its second object. Rather than replacing the rightmost point and connecting sides with a line segment, we can replace all points to the right of the center of the circumscribing circle with a line segment."

Appendix A, introduction, eleventh paragraph, last two sentences

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"For 0-objects, our transformation method would be: change the character to 1 and return. For 1-objects, our method would be: change the character to 0 and return."

were deleted.

Appendix A, introduction, twelfth paragraph

Changed "vertical line" to "line" in the third sentence.

Changes made on 10 December 2014

Chapter 3, A Boundless Interpretation of Quantum Mechanics, seventh paragraph, second footnote, last sentence

"Here, we are the decider."

was changed to:

"At zero public entropy, the universal decision-tree model is comprehensible. As entropy rises, it becomes less so. In general, the better we decide, the more useful the universal decision-tree frame becomes."

Chapter 3, A Boundless Interpretation of Quantum Mechanics, eighth paragraph, second footnote

Changed "conversing with us to be no more useful than we would find conversing with bonobos" to "doing so would be of little use" in the last sentence.

Chapter 4, Recursivity, last paragraph

Changed "time" to "time, which are those that ring truest with all that we currently know about deciding well" in the last sentence.

Chapter 7, An Extraordinary Anomaly, last paragraph

Changed "(rationality)" to "(rationality/logic)" in the last sentence.

Chapter 8, Three Types of Reason, fourth paragraph, footnote, last four sentences of the quote

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"If you look at Turing's work, you see, of course, there's a machine language. If you look at papers by Alonzo Church, you see the lambda calculus, which is a functional programming language. If you look at Gödel's original paper, you see what to me looks like LISP. It's very close to LISP. It begs to be rewritten in LISP."

were deleted.

Appendix C, The Role of Julius II, fourth paragraph, last sentence

Changed "authors" to "designers" in the last sentence.

Appendix C, The Role of Julius II, last paragraph, footnote

Changed "authors" to "designers" in the first sentence.

Changed "the Symposium" to "Plato's Symposium" in the second sentence.

Appendix C, Imagining the Designer, title

Changed title to "Imagining the Chief Designer."

Changes on 16 December 2014

The following changes address problems in writing style.

Preface, first paragraph

Changed "and took" to "for" in the third sentence.

Chapter 5, Pursue Boundless, Not Temporal Order, last paragraph

Changed "unraveling" to "burning down" in the second sentence.

Chapter 6, Worldly Benefits of Detachment, second paragraph, second through last sentences

Changed the case from the first- person plural to the second- person singular.

Appendix C, A Boundless View of the Whole, second paragraph, footnote, second and third sentences

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"From the boundless view, it represents a flattened model for finding problems to solve in carrying out the mission of Julius II. Given that the crossed-keys symbol at its center matches the symbol at the center of the ceiling, this mission appears to be the same as the mission depicted in the ceiling and walls. If so, the four disparate fields defined by curvilinear borders are likely the same fields depicted on the four walls. The curvilinearity of these borders represents the pretense of rationality found in all formal models that pretend to the Truth."

was changed to:

"Given that the crossed-keys symbol at the center of this area matches the symbol at the center of the ceiling, this area appears to depict a temporal model of the strategy for bringing ever more Holy Wisdom into the world. If so, the curvilinearity of the borders that define the four facets/factors in this flattened model represents the pretense of rationality found in all formal models that pretend to depict the path forward."

Changes on 24 December 2014

Chapters 2-7 summary (abridged version), second quote

""Consider the completeness of W. V. O. Quine's holistic approach to believing well: Our concept of completeness concerns the supply side of the market for tools for helping us believe well. We find conflicts in our belief systems. *The philosophy of science is philosophy enough*. Now consider the completeness of the boundless approach to deciding well: Our concept of completeness concerns the supply and demand sides of the market for tools for helping us decide well. We find holes as well as conflicts in our belief systems, e.g., we see that Quine's philosophy is too narrow (Morton White's problem) and that it lacks a normative element (Jaegwon Kim's problem). *The science of science is philosophy enough if and only if it includes pursuing all facets of the boundless end of deciding well."—S. M. Harris*²"

"² Harris, S. M., *Boundless Reason, A Universal Strategy for Deciding Well*, first chapter, last paragraph, footnote."

was deleted.

Chapters 2-7 summary (abridged version), first paragraph

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Changed "a safer means for us to program self-improving forms of artificial intelligence; and" to "and" in the last sentence.

Appendix A, The Big Picture, entire section

Changed the case from the first-person plural to the second-person singular.

Appendix A, The Big Picture, sixth paragraph

Changed "pattern you see" to "pattern" in the first sentence.