

Troubles in Paradise “In the Beginning” James Downard

1.5 • Dissing Darwin (Updated 12 May 2016)

1.5 Section 1—Darwin was an excellent scientist, but not according to antievolutionists.

Darwin’s solid reputation as one of the most meticulous and respected naturalists of his time certainly contributed to the speed with which the *Origin of Species* shifted the scientific *zeitgeist*. Darwin responded to criticism of his developing positions with a healthy mix of skepticism, graciousness and backbone, Dennett (1995, 49), Lahav (1999, 30-31) and Shermer (1997, 21-22). Ernst Mayr (2000) wrote similarly on “Darwin’s Influence on Modern Thought” for *Scientific American*, but Mayr (2001a, 11) summed it up most simply: “What made Darwin such a great scientist and intellectual innovator? He was a superb observer, endowed with an insatiable curiosity. He never took anything for granted but always asked how and why.” Jared Diamond (2001) remarked on his generosity, compared to the more divisive Freud, while Stephen Jay Gould picked up on the deeper temperament (which Gould shared in so many ways) concerning how Darwin:

was dogged and relentless, fiercely honest and logical in his thinking. He wrestled with every major difficulty, working and reworking, fretting and fretting again, until he achieved closure or at least understood why a solution eluded him. He often became obsessed with problems (levels of selection, for example) that his supporters either didn’t grasp at all, or didn’t understand as sources of interest or trouble. *Gould (2002a, 499)*.

Scientists react this way to Darwin because as workers in the field themselves, they know how hard it is to do what Darwin did all through his scientific life, just as you can tell how great Louis Armstrong was as a trumpeter by asking the opinion of musicians today (like Winton Marsalis)—or who a skilled bricklayer or plumber is by asking someone who lays bricks or fixes pipes. Niles Eldredge (2005, 17-18, 92): “Darwin was a remarkably original yet methodically encyclopedic thinker, who considered an even greater range of problems and phenomena than he is usually given credit for,” and that “The breadth and depth of Darwin’s firsthand experience with so many disparate fields is indeed breathtaking.” Biographer Janet Browne (2009) also reflected on Darwin as a “superb practical researcher.”

This extends to quite specific topics, such as Matthew Scott (2000, 27, 32-33) quoting Darwin’s awareness of so many developmental issues relevant to evolution, and Fraser & Harland (2000, 42) on Darwin’s prescience in seeing a connection between the lowly sea squirts (tunicates) and the more complex chordates, issues explored in Downard (2003b) and in **Chapter 2** of Downard (2004). Darwin was the first to recognize how coral atolls were formed, Van Wyhe (2008, 38-39). His thinking on the impact of invasive species anticipated current ecological views, Ludsin & Wolfe (2001), and his precision manifested even in his last work, a backyard study of earthworm behavior, Korb & Salewski (2011). Darwin also literally wrote the book on barnacles, which may be thought of as his first foray into applied transmutationism, Quammen (2006, 92-104, 107-110) and Van Wyhe (2008, 42-43, 45-46). Not that Darwin was an oracle. He had his hits and misses, surveyed by Deutsch (2009), including some “dreadful blunders.” Some issues are still ongoing: Darwin may have got it wrong when he thought invasive species would stand the best chance to overtake the locals if they are more distantly related to native forms, Park & Potter (2013), though the details of their study elicited quite a few technical caveats: E. Jones *et al.* (2013), Sol *et al.* (2014) and Cadotte (2014).

On the other hand, the evolution skeptics have a long tradition of disparaging Darwin’s legitimacy as a scientist, and nonscientists (especially ones with hefty *Kulturkampf* axes to grind) can be very

unimpressed with the Darwin legacy or his proficiency as a naturalist. It began right off the bat with the acrimonious vendetta novelist Samuel Butler (1835-1902) had against Darwin—though Milner (2009, 62-63) indicated Butler was just as snarky about 19th century religion, suggesting that however tight the evolution vs. religion conflict may seem today, skepticism about evolution *and* religion can be pals. The practice has persisted with scattershot attacks by physicist Fred Hoyle (1915-2001) claiming Darwin's pre-Wallace theorizing on evolution was "vague" in Hoyle (1983, 30-31), through to Vine Deloria (1999, 45) charging "it is quite possible that Darwin simply stole Wallace's idea of natural selection and had the right political connections within the English scientific establishment to make good his theft," based on "new research" culled from the decades-old Beddall (1968) and Brooks (1972).

End Times groupies LaHaye & Noebel (2000, 338) hit marks for historical cluelessness by declaring Darwin wasn't really a scientist because his degree was in theology (this trope continues to crop up among grassroots creationists in online encounters). Sorry, though, before the likes of Thomas Huxley got into the fray there *were no degrees in science disciplines*, so you had to make due with Natural Theology study. Michael Flannery (2015c) spun Darwin's failings in the opposite direction, accusing him of bad "scholarship" because he showed no great interest in theology or philosophy, or reconciling his new evolution theory with either.

Christopher Ferrara (2015) rearranged the historical chronology as well by deciding that Darwin "was a scientific mediocrity who knew almost nothing of the emerging science of genetics being developed by the Augustinian friar, Gregor Mendel (1822-1884)." Never mind that nobody in science was particularly aware of Mendel's work prior to 1900, so Darwin was hardly alone on the slow learning curve. We'll be exploring more in due course about Mendel's genetic work and its relevance (or not) to Darwin's thinking in the 19th century and what should be understood about evolutionary biology in the 21st (where current antievolutionists actually live).

New Zealand creationist & children's book author Richard Gunther (2015) first offered that "Darwin was, in a limited way a scientist in a small way," but after a few pages of simplistic cartoon panels dispensed with his undocumented hedging to conclude: "Darwin was a poor scientist, and an even worse theologian." Religion was also the hot button for Michael Shaver (2003) at the *Alpha Omega Institute*, declaring "most of his ideas were plagiarized" and that his grandfather Erasmus Darwin's "ideas may also be responsible for Charles' bitterness in life having helped move him away from God."

SABBSA (2010n) offered a similarly glib condensation of Darwin's motivations:

By 1859 Darwin had published "Origin of Species" not because he suddenly became assured of evolution's truth, but because two other perceptions pushed him in that direction. First, his young daughter died at age seven leading him to the conclusion that the benevolent God of the bible did not exist. Second, he perceived that Alfred Russell [*sic*] Wallace was about ready to publish a very similar theory and he would lose his right to the credit for his discovery.

SABBSA did not venture whether the rival Wallace (whose years of direct observation of nature was still well behind Darwin's meticulous lead) might have been more or less "assured of evolution's truth" than Darwin supposedly wasn't, though it was clear to them that "Satan has talked others into believing in theistic evolution for political reasons or due to vanity in the human spirit to believe that we have a more mature understanding."

Creationist quote miners haven't been able to resist temptation in this area either. When the English geneticist C. D. Darlington (1903-1981) contributed a rather breezy piece on "The Origin of Darwinism" for *Scientific American* occasioned by the *Origin* Centennial in 1959, he offered a tart opinion of Darwin's contribution that appealed to the apologetic crosshairs of Morris & Morris (1996c, 35-37), who excerpted only the final sentences in this paragraph from Darlington (1959, 66), their

quoted part in **bold**:

In short, it is clear that Darwin's success was due to several common vices as well as to several uncommon virtues. His gifts as an observer in all fields concerned with the needs of his theory of evolution were extraordinary. His industry and patience in collecting and editing his own observations as well as other people's were hardly less remarkable. On the other hand, his ideas were not, as he imagined, unusually original. **He was able to put his ideas across not so much because of his scientific integrity, but because of his opportunism, his equivocation and his lack of historical sense. Though his admirers will not like to believe it, he accomplished his revolution by personal weakness and strategic talent more than by scientific virtue.**

Never mind that Darlington did not offer anything like clear evidence for this opinion, or that Henry and John Morris did not elect to quote the next sentence, where Darlington approved of how "We owe to *Origin of Species* the overthrow of the myth of Creation." As Darlington was a mixed bag of anti-authoritarian rationalism that thrived on controversy—he fell out with fellow Brit geneticist J. B. S. Haldane (1892-1964) over the Soviet embrace of the anti-genetic Marxist "biology" of Lysenkoism—and defended a pungent brand of eugenicist racism, he was perhaps not the wisest of authorities for quoting. The truncated Darlington quote continues to circulate in YEC secondary redactions, of course, such as Foard (1996) and Brace (2010).

Nationalism has played a part in Darwin denial too. Although there were some early French advocates of Darwin, on the whole the French scientific community did not warm to it, Farley (1974) and Browne (2002, 142-144, 260-261). As outlined by Bowler (1983, 107-117), late 19th century French naturalists continued the abstract morphological tradition of Cuvier (characterizing what you could about what something looks like from the sedate comfort of one's museum office) and were slow to adopt the down and dirty field study approach (where you saw animals interacting in dynamic ecological contexts) exemplified by Darwin and Wallace. There was also a teleological streak to French thinking (a plan and purpose for it all, with or without divine nudging) that conflicted with the (god optional) trial and error focus of orthodox Darwinism. French laboratory biologists like Claude Bernard (1813-1878) and Louis Pasteur (1822-1895) further regarded the history of organisms as a highly speculative enterprise to begin with, which was somewhat easier to do back when there was no microbiological fossil information to go on (we'll return to Pasteur concerning the "spontaneous generation" controversy in section 1.7).

Evidencing unfamiliarity with this context of French science history, creationist Wayne Jackson (1994) crowed in *Reason & Revelation* how Darwin was long rejected for membership in the "prestigious French Academy of Sciences" on account of the "evidently fallacious" nature of his arguments. Alas, this may only have represented how peripheral the French had become on the evolutionary scene (just as the Soviets were isolated from genetic theory over Lysenkoism)—and for still more irony, although there was a current of neo-Lamarckianism in French "transformism" (they long resisted adopting the Brit term "evolution") it was mainly the "American School" of evolutionists who attempted to revive inheritance of acquired characteristics early in the 20th century and temporarily eclipsed Darwinian style evolution.

1.5 Section 2—Benjamin Wiker & others take a hatchet to the Darwin Bicentennial.

As the science and general media geared up for the Darwin bicentennial in 2009, the parlor game of Darwin-bashing saw something of a resurgence, with *The Darwin Conspiracy: Origins of a Scientific Crime* by former BBC producer Roy Davies (2008), *The End of Darwinism: And How a Flawed and Disastrous Theory Was Stolen and Sold* by Vietnam War-era investigative reporter Eugene Windch

(2009), and *The Darwin Myth: The Life and Lies of Charles Darwin* by the Discovery Institute's Benjamin Wiker (2009a), variously reviving the discredited accusations of Butler and others about Darwin supposedly stealing his main ideas from his fellow scientists, especially Wallace, and attributing all manner of ills to Darwin (including, of all things, an acceptance of "natural slavery").

Such a view would be hard to defend based on scholarship such as *Darwin's Sacred Cause*, Desmond & Moore (2009), though a few antievolutionists have taken a whack at it. Creationist Rockie Fordham (2009b; 2010) showed no familiarity with Darwin's views on slavery or racial equality apart from what she extracted from secondary religious apologetics, a method Fordham (2012) apparently followed as she recycled a limited array of sources for her online "Creation versus Evolution" course. Over in ID land, though, while Michael Flannery (2009a) at *Uncommon Descent* did not take issue with the main thrust of *Darwin's Sacred Cause* (that Darwin was an abolitionist champion), Flannery (2009c) extolled Wiker's book at *Evolution News & Views*, including how it "convincingly refutes" the view of Desmond & Moore (2009) on this very point—a neat trick in that the main thesis of *Darwin's Sacred Cause* only came up once, Wiker (2009a, 144) alluding to it in a single sentence: "It has been argued that Darwin's affirmation of common ancestry for human beings was formed in great part by his hatred of slavery."

Though Wiker cited the book in the footnote, there was *no discussion whatsoever* of the case presented by Desmond & Moore—let alone any refutation of it. The details in *Darwin's Sacred Cause* showed how little Darwin's thinking resembled that of 19th century defenders of slavery, and how Darwin's evolutionary conceptions conflicted with the views of actual racists. That centuries of Christian slaveholders managed to rationalize their ownership practices without relying even a smidge on anything even remotely "evolutionary" should also be kept in mind, as explored in **Chapter 6** of Downard (2004).

As for the Wallace plagiarism/priority canard, Shermer (2001, 283-306), Slotten (2004, 157-162, 170-173), Kevin Padian (2008; 2009), Milner (2009, 129-130) and Van Wyhe & Rookmaaker (2012) thoroughly dispose of that, which one may compare with the back-and-forth at *RichardDawkins.net* (2008) as well as the very detailed analysis by Todd Wood (2009), the Young Earth Creationist baraminologist writing for *Answers in Genesis*. Darwin was organizing his 1842 natural selection sketches when Wallace was 19, yet to even start any field work, Slotten (2004, 152), and was incontestably confiding in his close friends about the essentials of the theory during this period, such as his 1844 letter to Joseph Hooker, Bagley (2010). By late 1853 Wallace was just starting to realize that some species were younger than others, but not yet hitting on natural selection as the explanation for it, Slotten (2004, 55, 93-95). Slotten (2004, 281, 288) further noted how Wallace explicitly acknowledged Darwin's priority and hard work in an 1870 collection of essays, and how they agreed scientifically on 19 of 20 points. Slotten (2004, 6) summed up the legacy issue thus:

Some have blamed Darwin for failing to give Wallace proper credit for his contributions. But this is not true. Darwin made plenty of allusions to Wallace. If anyone can be faulted, it is Wallace himself, who deferred to Darwin time and again throughout his long life, thus ensuring that posterity would forget him. It was also Darwin, not Wallace, who wrote the great book. Had Wallace completed "On the Law of Organic Change," his text on evolution, he might be celebrated today. Once *The Origin of Species* had been published, however, he saw no point in continuing to work on a book dealing with the same subject.

The latest entrant in the Darwin-Wallace plagiarism parade is criminologist Mike Sutton (2014), who accused the two of them of "the world's greatest science fraud by apparently plagiarizing the entire theory of natural selection from a book written by Patrick Matthew and then claiming to have had no prior knowledge of it." Patrick William (1790-1874) had indeed put forward a very condensed

suggestion in an appendix to his book on trees and the naval application of wood, William (1831, 381-387), that the diversity of life could have originated by a natural selection among the more successful hybrids arising from existing species.

While a tidy summary of what Darwin and Wallace would independently develop decades later, William had not elaborated at the time nor later. Sutton's argument turned primarily on naturalists after 1831 having occasionally cited William's book, and that a few of those were in turn familiar to Darwin and Wallace. What Sutton neglected to do in this tenuous citation trail was establish that any of those were to the few pages where William had fielded his speculation, rather than to the work's extensive content on trees. Lacking that important link, Darwin's noting in 1860 that no one had paid attention to William's natural selection idea at the time or after remained perfectly defensible, and hardly the evasive stonewall Sutton claimed.

In February 2016 a creationist linked to Sutton's piece during an exchange on Twitter—one to which I was not a party, but only an observer. When I did weigh in, it was to ask whether the antievolutionist had source checked to see whether Sutton's argument held up. No reply. It is noteworthy that a scholar specifically interested in William's work, Michael Weale (2015), had taken issue with Sutton for his limited data mining that contributed to a confirmation bias. Students of the Tortucan mindset shouldn't be surprised at this situation, or that a creationist could so easily rely on a source that said what they wanted to be true. The weakness of Sutton's argument was attested even by Michael Flannery (2016c) over at *EN&V*, who wasn't buying into the plagiarism claim, though again it was regarding another secondary source, the commentary by Daniel Engber (2016).

What all the recent anti-Darwin tomes have in common, compared to the regular scholarly biographies of Darwin, is how surprisingly thin and selective their background documentation were. Windchy's entry was the worst of the lot, dispensing with stodgy formalities like source citations altogether, which tells us something in turn about the lazy tastes of conservative pundit Pat Buchanan (2009) when he drooled over *The End of Darwinism* without pausing to check whether any of his undocumented claims were actually true (for instance, assertions about the evolution of bird feathers from reptilian scales is examined in Downard (2003b) and **Chapter 2** of Downard (2004).

While Davies had some footnotes, this didn't help him much critically. John Wilkins (2009) had no trouble spotting holes in Davies' accusation that Darwin stole the evolution idea from Wallace in the 1850s, including Wallace's own repeated acknowledgment of Darwin's priority. More damningly, *The Darwin Conspiracy* was so superficial it couldn't even persuade Todd Wood (2009), who pulled Windchy's argument to shreds over at *Answers in Genesis*, which may be compared to the giddy Michael Flannery (2008) at *Uncommon Descent*, willing on the basis of Windchy's gossamer scholarship to reappraise Darwin as "a rather pathetic attention-getter, interested more in fame than facts, worried more about reputation than science, a borrower, a poseur, a cheat."

As for Wiker's book, *The Darwin Myth* benefited from plenty of internal promotion along the *Kulturkampf* grapevine, from the laudatory Bill Muehlenberg (2009a) and Ray Bohlin (2009c), to the online reaction at *A Catholic Social Commentary* regarding Matthew Warner (2009). Alfred Regnery's conservative *Human Events* (2009) recommended *The Darwin Myth* (published by, guess who, Regnery Publishing) along with the similarly demonizing anti-Obama tome *Catastrophe* by Dick Morris & Eileen McGann. In this self-congratulation department, a December 2009 mailing by the *Discovery Institute* hailed the publication of *The Darwin Myth* as one of the Institute's notable accomplishments for the year, and Flannery (2009b) characterized this "Must Read!" work as "the absolute best yet" in the Darwin "analytical biography" department.

From a scholarly methods perspective things are not necessarily rosier over in the pro-Darwin camp, at least at the blog level. As we'll be seeing more of regarding initial reactions to the likes of Michael Behe, Jonathan Wells and Stephen Meyer, the first snap reviews of works (pro or con) are often cursory. This is because it does take time to explore and research a topic properly, and the temptation to snap

judgments is as strong there as anywhere else. So while Sander Gilboff (2009) offered substantive criticisms of *The Darwin Myth* for the NCSE, the brief critique by Bjørn Østman (2009b) played off only the publication summary of the book, and the predictably unsympathetic reaction at the *RichardDawkins.net* (2009) was a parade of “oh, not *that* again!” chagrin unaccompanied by the likelihood any of them would eventually consult the book itself.

This is not to give the impression that Wiker’s argument might really have some merit only because so few well-aimed shots were fired at it to start. To the contrary, once you dive into the text and start matching up scholarly citations with the available evidence, *The Darwin Myth* starts unraveling as completely as Davies or Windchyl.

Though *The Darwin Myth* had references they were not copious, but more telling is that at critical junctures Wiker slips in bald assertions without even trying to support them. Thus Wiker (2009a, 16-17) accused Darwin’s nonbeliever father Robert Darwin (1746-1848) of cravenly supporting the Anglican church only to curb the revolutionary excesses of “the lower orders”, since “Radical thought, while fine enough if it circulated quietly among the upper, closed circles of society, was too heady a wine for the masses—or for women, who as weaker vessels, also needed the crutch of religion, he believed.” Wiker went on to tar the Unitarianism so many of the Darwin-Wedgwood clan believed in as “the church of the smart-set, who were smugly certain that the Bible was merely one more book of ancient mythology.”

Smugly certain, was it? And how exactly did Wiker establish that? There were no references cited—not for that, nor his jab at Robert Darwin’s attitudes on the working class or women. It reminds me of a potshot fired by creationists Morris & Morris (1996c, 156-161), tactically quoting from radical feminist critiques to disparage Darwin the man (while cautioning readers not to be deceived by actually embracing that feminism) and insisting that Christianity alone has not “relegated women to a very inferior place in society” because all are equal before God. And thereby was the history of women’s subordination over centuries in European culture (and their long secular struggle to achieve legal and social equality) gently nudged under the rug.

Actually, the Darwin-Wedgwood set had an armada of some of the most strong-willed and dedicated women you are likely to find in any family, and it is difficult to imagine anyone taking such figures as prone to the vapors or needing some crutches (religious or otherwise). Many examples appeared in Adrian Desmond & James Moore’s *Darwin’s Sacred Cause* (a work Wiker only peripherally cited): Fanny Wedgwood (1800-1889), daughter of the charismatic abolitionist James Mackintosh (1765-1832), and a deep influence on Darwin, as well as Fanny’s great friend, the “deaf and indomitable” Harriet Martineau (1802-1876), whose gripping publications on American slavery motivated British abolitionists to extend their cause across the Atlantic, Desmond & Moore (2009, 65, 127).

As for biblical exegesis, was Wiker simply assuming that it was impossible for anyone to entertain skepticism about the factual basis of many Bible tales (whether in the early 19th century or since) without exhibiting *smugness*? That no one could arrive at a view of the Bible as an all-too-human document based on considered investigation or deep introspection, and honest conviction? That cat was already out of the bag by the mid-19th century, certainly represented by “The Seven Against Christ” Anglican scholars in their 1860 *Essays and Reviews* collected by John William Parker (1792-1870), representing a rising liberal tide of rejecting dogmatic tradition, from the abolition of the Religious Test for public office to embracing the new German “Higher Criticism” of the Bible, Francis (1974) and Altholz (1982).

Clerical Darwin critic Bishop Samuel Wilberforce (1805-1873) highly disapproved of *Essays and Reviews*, and three of the contributors, Henry Bristow Wilson (1803-1888), Rowland Williams (1817-1870) and Benjamin Jowett (1817-1893), had heresy charges thrown at them—though only Wilson and Williams were actually tried (in 1862, convicted on three of the eight charges, but overturned on appeal in 1864). However stuffy and timid Parker (1860) might appear today, the volume was thus hot stuff in its day, and “for at least a decade received more attention than Darwin’s *Origin*,” Noll (2011, 154)—

indeed, *Essays and Reviews* still raises hackles for some, such as Roger Beckwith (1994) for the English Church Society *Churchman*.

But even Wiker (2009a, 34-35) must have known that this abandonment of a literal reading of the Bible was hardly limited to the elite “smart set” in which he was trying to pigeonhole the Darwins, since he explicitly brought up Darwin’s college mentor, geologist (and devout Anglican priest) Adam Sedgwick, stressing that Sedgwick was not “a scriptural fundamentalist” and whose anti-transmutationist views involved progressive appearances in a geological framework following “a pattern established in Genesis but written on a much grander scale of time.”

In other words, Sedgwick was one of those scientists who had flatly *abandoned* the plain reading of Scripture that had prevailed for centuries. *Answers in Genesis* or the *ICR* do their own pigeonholing for such people today: invidious compromisers who let their own fallible human observations override the Creator’s clear description of exactly what and when things were made in Genesis—and that would include Benjamin Wiker, accused of just such apostasy by Don Batten (2010) over in *AiG* country. But there is no reason to believe Sedgwick arrived at his religious views with any more or less application of *smugness* than the Darwins had—especially comparing the rhetorical attitude Sedgwick (1860) deployed when criticizing Darwin. The problem was not with individual personalities. The difficulty was that by the 19th century it was increasingly untenable for thoughtful people to take the traditional Bible worldview straight up serious, especially when it came to trying to reconcile the Genesis account with developing geology, nicely illustrated by the thorough Anglican jurist and Egyptologist Charles Wycliffe Goodwin (1817-1878) in his contribution to the *Essays and Reviews*, Goodwin (1860).

As it happens, though, smugness seems a uniquely Darwinian malady in Wiker’s framework. “A daguerreotype survives from 1842 of Charles and young William,” recounted Wiker (2009a, 68), “a smugly beaming father who knows, to his complete satisfaction, that he holds a once and future king on his lap.” This afforded Wiker an opportunity to diagnose Darwin on the health decline as a setup for a cheap shot: “Darwin’s eyes revealed the toll. He was sicklier, his eyes were dark and haggard, and his weight had dropped below one hundred and fifty pounds. Not good, for a man almost six feet tall. He seemed to be singularly unfit to survive the rigors of science and the pressures of secretly fine-tuning his arguments about the survival of the fittest.”

Here I was reminded of a similar attempt at retroactive medical diagnosis by Young Earth Creationists Morris & Morris (1996a, 109): “Charles Darwin was a vigorous, healthy, almost happy-go-lucky man before he was converted to evolution, but a man of sickly body and troubled mind all his life thereafter.” *Conservapedia* (2013i) concluded their coverage of the topic with the view “that Darwin’s illness was the result of guilt and/or fear.” Over at *EN&V*, while Michael Flannery (2015b) didn’t render any opinion on Darwin’s declining health, he readily pegged his lessened interest in the arts in later years to a “scientism” worldview. Though Chuck abandoned the likes of Shakespeare, I find it relevant that he enjoyed reading potboiler fiction (which may have indicated more about a man preferring light amusement in his old age rather than re-wrestling the deep topics of youth he now explored with the mental toolkit of science).

But it is hard to beat the seldom-temperate Jerry Bergman (2004a) at *ICR* wondering: “Was Charles Darwin Psychotic?” Bergman buttressed this inflammatory diagnosis by some particularly strained innuendo, such as translating Darwin’s youthful fondness for bird shooting into evidence of a “sadistic streak” (a broad tarring that would seem just as applicable to the “Duck Dynasty” hunting constituency of the NRA in the 21st century, so Bergman should be very careful how he swings that brickbat when wandering into the *Kulturkampf* underbrush).

Darwin did indeed suffer repeated bouts of ill health (often relating to social visits), and Desmond & Moore (1991, xx, 335) noted Darwin was “addicted to quackery” when it came to what to do about it (whether from desperation or conviction is hard to say)—notably the cold shower “water cure” vividly depicted in the stolid 2009 Darwin biopic *Creation*, which film earned a quite temperate review by

Sahms (2010) at *Hollywood Jesus*. Relying on water therapy may have contributed to the death of his daughter when Darwin took her to the Malvern clinic to cure her too, and the disastrous outcome of that must have entered the anxiety mix jostling in Darwin's head to further fuel his fitful ill health and hypochondria as he worked over the *Vestiges of Creation* implications of the scientific arguments he was offering, along with deflecting the offended religious convictions of his more devout wife.

That complicated psychological approach has been taken in treatments from Edey & Johanson (1989, 62-63) to Pasnau (1990). Barloon & Noyes (1997) decided more specifically that Darwin suffered from "panic disorder with agoraphobia" while Katz-Sidlow (1998) identified deeper issues involving a father prone to withdrawing into the manner of "a detached clinician" when it came to matters like resolving family grief (Charles lost his mother when he was four) and ending up having "difficulty relating to a healthy Charles" (father and son got together most often when Charles consulted his father on his flaring health problems).

There are more proximate biological candidates to consider, though, starting with Chagas' disease—misspelled as "Chaga's disease" by Bergman (2004a) in his dismissive coverage of the issue. Caused by the trypanosome parasite, it is vectored by a South American insect (the *Benchuca*) that may have bitten Darwin during the *Beagle* voyage, Bernstein (1984) and Carl Zimmer (2000e, 158; 2000f, 44). But a more recent analysis by Orrego & Quintana (2007) narrowed the field to another culprit: Crohn's disease (a bacterial intestinal disorder not diagnosed in the 19th century, which Darwin may have come down with in 1834 while in Chile). Its chronic symptoms match the bulk of Darwin's etiology, and even accounts for the seeming benefits of the water cure: "cold enhances cortisol secretion, which depresses the immune system and inflammation, and ameliorates the symptoms of the disease," at least for a while.

Whatever the cause of Darwin's recurrent tummy troubles, the fact remains that the 38-year-old parent alluded to by Wiker would live another *forty years* and revolutionize biological thinking along the way. Wiker didn't feature any illustrations for the reader to observe Darwin's deterioration firsthand, though the 1842 daguerreotype was shown in Desmond & Moore (2009, Plate 17)—and also in Van Wyhe (2008, 40-41), along with an 1853 one of his wife holding their son Leonard. What seems clear enough comparing the two photos in Van Wyhe is the image of parents trying to sit sufficiently still *for the photographs to be taken* (the daguerreotype process in particular required excruciatingly long exposure times). So we see William and Leonard transfixed by the camera, while daddy Darwin had a look of dreamy reverie staring off to one side, and Emma appeared most resolute as she gripped her son tight until the exposure was done. Van Wyhe noted, by the way, the 1842 portrait with William was the only time Darwin sat for a formal photograph with any of his children—perhaps due to his *smugness*.

Far more significant than Wiker's photographic forensics or "smug" potshots, though, is how he repeatedly tiptoed past any of the *evidence* Darwin drew on in his work. Given the conviction of Flannery (2009b) that Wiker "ably marshals his facts and analysis," this is no trivial issue, but cuts at the core of Wiker's reliability as a secondary redactor. To start, Wiker (2009a, 45, 57) mentioned Darwin's finds of "a partial *Megatherium* skull, an extinct version of the living land sloth, only much larger, and a llama-esque or camel-esque, long-snouted *Macrauchenia patachonica*," and the "extinct, sloth-like creature, *Scelidotherium*, weighing in at about three tons, and the *Toxodon* and *Glyptodon*, oversized versions of the capybara and armadillo, respectively," but does not share with the reader what he thought of them. Were these many "-esque" and "-like" forms related to their modern exemplars by natural means or not?

With no more concern than someone discarding a candy wrapper, Wiker has name-dropped taxa sprawling across the last 100 million years of mammal evolution. The sloths and armadillos are members of the Xenartha, originating in South America and undergoing a radiation after the K-T extinction, Delsuc et al. (2001). *M. patachonica* is a representative of the Litopterna exclusive to South America, an extinct order of hoofed mammals that branched off from very early mammals, like *Protungulatum* tracing back to the Late Cretaceous, Archibald et al. (2011), which would generate over

the millions of years to come many cousins, including horses, pigs and whales. A couple million years ago *Toxodon* was one of the more common large hoofed animals in South America, part of another now-extinct group, the Notoungulata, Billet (2011).

Returning to the parade of sidestepping data in *The Darwin Myth*, Wiker (2009a, 47) asked rhetorically of the Galápagos island fauna: “Were they just plopped down from heaven?” again without venturing an opinion himself (one may recall the finch paternity suit outlined back in section 1.4). Or Wiker (2009a, 69) dangling the venerable antievolutionary claim about the absence of “smooth transitions between species” in the fossil record: “As with his later Origin, he met them, not by arguing against them directly, but largely by appeal to indirect evidence of circumstance that would explain away the problem. The fossil record, for example, was not yet fully unearthed, and further, fossils simply were not that frequently preserved, so gaps were only gaps in fossilization, not in actual species that had lived.”

Once more there were no citations, but in the chapter devoted to the “Imperfections of the Geological Record” Darwin (1859, 298-300) specifically noted how fossil discoveries had already improved the picture for several groups: monkeys, whales, fish, and barnacles (that latter a topic fresh in Darwin’s mind, having just completed his definitive monograph as noted in section 1.4 earlier), all of which had been thought to have appeared only in recent strata but where earlier examples were turning up. Since paleontology over the last century and a half since the *Origin* vindicated Darwin’s optimism on a spectacular scale, as we’ll see in numerous examples (including those monkeys, whales and fish), Wiker’s repetition of the fossil transitions mythology indicated the powerful role lack of curiosity can play when the object is axe-grinding rather than understanding.

Even with Darwin’s pioneering work on barnacles Wiker (2009a, 78) weighted his coverage with minimizing terminology: “He glimpsed the whole drama in what appeared to be the succession of evolutionary stages in the barnacles marching in front of his tired and triumphant eyes.” So they just *appeared* to be that—but not really, due evidently to a weary clouded vision—and all without corroborative citation to distract Wiker’s stroll down the Darwinian evidential sand walk.

Consider what was known about barnacles by 2009. There are fossil examples, though before they developed their distinctive calcareous coverings the deep ancestors of barnacles had a slim chance of getting preserved. There is a possible *lepadomorph* barnacle (a murky polyphyletic group with a thin fossil record generally) back in the Cambrian, Collins & Rudkin (1981), but the main radiation didn’t take place until a hundred million years later (in the Silurian) and several groups in the acorn barnacles diverged and proliferated after the dinosaurs checked out, Pérez-Losada *et al.* (2009). Stanley & Newman (1980) traced the immense impact of an initially minor variation in those acorn barnacles: the earliest and quite successful *chthamaloids* were driven into niche ecologies by the *balanoid* barnacles because their development of sturdy *tubiferous* wall structures eventually allowed them to grow more quickly and displace competitors.

Sorting out the evolutionary dynamics of how barnacles did all this required the merging of fossil data with developmental studies, along with cladistic taxonomy tools and genetic information unavailable to Darwin in the 19th century, but all actively in play by the time Wiker arrived to dangle his vague ID alternative: such as Glenner *et al.* (1995), Pérez-Losada *et al.* (2002) and Briggs *et al.* (2005). Pérez-Losada *et al.* (2008) had just undertaken a major review of the field, and the perspective by Zelnio (2011) illustrated the level of detail involved. Such scientific labor has continued in Pérez-Losada *et al.* (2012) and Petrunina *et al.* (2014).

This “tiptoe close then run off” reticence continued all the way through the book, so that by Wiker (2009a, 138-139) all he could do was repeat the canards creationists have been trotting out for the last century, and which have been dressed up by his modern *Discovery Institute* colleagues: the supposed lack of species transitions, the claimed contra-Darwinian Cambrian Explosion, the inadequacy of natural selection—and, yes, even the venerable “living fossils” claim made a bow, this time Wiker tossing in

“creatures that have not changed significantly over hundreds of millions of years, like the crocodile, alligator, cockroaches, dragonflies, and so on.”

Once again, Wiker didn't think he needed to document any of this. Just as with the “smug” Darwin, the desire for it to be so appears to have been enough. Drop down onto the science workroom floor, though, and a very different picture of crocodiles emerges. The detailed taxonomical survey of crocodiles by Christopher Brochu (2003, 359), for example: “However similar modern crocodylians are to some of their older relations, we cannot regard crocodylians as ‘living fossils.’ They seem not to have changed much if we observe them at a distance, but up close they show significant change over time.” Salisbury *et al.* (2006, 2439) is similar: “the morphological diversity that crocodyliforms display today represents only a fraction of that during the Mesozoic.” General illustrations of this are not hard to find in this Internet age, such as the more current *University of Bristol* (2012) or zoologist blogger Darren Naish (2012c).

Had Wiker wanted to muck around in some of the data he could have started with the supposedly static “living fossil” croc itself: their distinctive snout shapes (blunt versus narrow) have gone through repeated iterations over their history, Brochu (2001), but these modern forms only arrived during the Cretaceous—far from the “hundreds of millions of years” in Wiker's bracket with the insects. If Wiker further supposed no transitional forms linked crocodile ancestors, he'd be wrong there too. There is the 100-million-year-old Australian fossil described by Salisbury *et al.* (2006, 2439): “*Isisfordia* fills an important gap in terms of fossil evidence for one of the major anatomical transitions in the evolution of crocodyliforms. In almost all respects, *Isisfordia* neatly conforms with Huxley's 1875 model for the gradual evolutionary transformation of crocodyliforms, possessing the morphology expected for a basal eusuchian.”

As one would expect of animals evolving from natural predecessors, ancestral Late Triassic crocodylomorphs such as *Hesperosuchus*, J. Clark *et al.* (2000), or *Gracilisuchus*, Lecuona & Desojo (2011), are hard to differentiate from their so-similar closest archosaur cousins. Nor did these early critters look much like the classic croc model: they were agile sprinters, possibly with a warm-blooded metabolism, powered by a four-chambered heart that modern crocs retain, though modified later as they adapted to an aquatic sit-and-wait-patiently ambush predator lifestyle, Seymour *et al.* (2004). That shift also co-opted locomotion muscles for use in breathing and body orientation during dives, Carrier & Farmer (2000) and Uriona & Farmer (2008). Crocodiles have drawn on this fertile metabolic base more than once, evolving the functionally bipedal pristichampsines in the Eocene, animals few would mistake for a typical crocodile, Brochu (2003, 366-367).

More recent finds have only reinforced this picture of crocodylomorphs, clarifying and illuminating their diversity and origins with ever improving resolution, such as the Triassic apex predator *Carnufex carolinensis* that gave early dinosaurs a run for their munch money. “*Carnufex* bridges a problematic gap in the early evolution of pseudosuchians by spanning key transitions in bauplan evolution and body mass near the origin of Crocodylomorpha,” Zanno *et al.* (2015).

The same evolutionary factors that we encountered in the P-E debate play out here too. The metriorhynchids, alligators that lived from the Middle Jurassic to Late Cretaceous, took the marine approach to the limit, with full flippers and tail fin, M. T. Young *et al.* (2010); *Prehistoric Life* (2009, 254-255) illustrates several examples. Looking at the skulls of their two main subfamilies, assessing bite strength and other factors reflecting their habitat, M. T. Young *et al.* (2011) found that the “smaller, piscivorous metriorhynchines” showed a static layout nudged by occasional functional adaptations, while the “mostly megapredatory geosaurines” followed a broader random adaptive track. This depth of analysis is a long way from the postage stamp “living fossil” sticker in Wiker's *Discovery Institute* book, and renders particularly ironic Flannery (2009b) accusing *Darwin* of a willingness “to brush both evidential and philosophical problems aside” and not the author of *The Darwin Myth* in whose footsteps Flannery so credulously followed.

However reluctant Wiker was to wrestle with croc paleontology, though, Wiker (2009a, 105) was nonetheless certain that after the *Origin of Species* proved popular, the triumphant Darwin clique set out to purge doubters: “Opponents were locked out, ignored, and mocked. As Browne reveals, Darwin made his contributions from behind the scenes, letting his more forceful proponents do the direct work of takeover.” This was an unreferenced allusion to Darwin biographer Janet Browne (2002, 10-12, 101-104), who had described how effective Darwin’s global network of scientific correspondents was to the acquisition of new information and the dissemination of his ideas, especially in a proliferation of new magazines made possible in the industrial age. The only problem was that nowhere in Browne’s extensive book did she indicate any incident of opponents “locked out” of the scientific world on this account, and one may note again how Wiker neglected to specify any instance of anyone who was.

The game was, if anything, rather lopsided. As Browne (2002, 129) noted: “Darwin’s opponents failed to achieve anything like the same command of the media or penetration of significant institutions. Opponents did not unite with the same *esprit de corps*.” Browne (2002, 329) later contrasted “Darwin’s Bulldog” Huxley, who “enjoyed his cliques and believed that small groups of ‘right-minded men’ were by far the most effective way to get things done,” with St. George Mivart (1827-1900), a devout Catholic who “wanted none of this.” Mivart fell through the cracks doubly, as Mivart (1871) was an early Darwin critic, but was eventually excommunicated for accepting some of the evolutionary framework—examples of Mivart’s anti-Darwinian claims will be encountered in due course.

In a period when natural history museums essentially reflected the views of their founding curators, it was inevitable that the competing camps in the evolution debate marched around them too. Geologist John Phillips (1800-1874) opposed Darwin from his Natural History Museum at Oxford, while the Huxley block undercut Richard Owen’s planned national museum, not built until the 1880s, Browne (2002, 97-100, 110-111, 337). Not all was hard feelings, though, as Owen joined Huxley to recommend Wallace as director for a new Bethnal Green Museum in 1868, but it was never built, Slotten (2004, 270). Scientific arguments with Owen were inevitable, of course, given his tendency to let his antipathy for evolution get the better of himself factually, such as fielding a highly questionable “expert” on the newly discovered gorilla, Browne (2002, 156-160).

Darwin did bear one grudge according to Browne (2002, 87-88): for a highly critical early review of the *Origin of the Species*—though as it was an anonymous one, this was obviously no example of any person being hounded or persecuted. Another incident Browne (2002, 353-356) recounted involved St. George Mivart. It had nothing to do with Mivart’s criticism of Darwinian evolution, though, but more personal: the Darwin camp blocked his membership in the Athenaeum Club after Mivart went ballistic over Charles Darwin’s son George advocating liberalizing divorce law for cases of marital abuse or mental disorder. Catholicism to this day does not recognize divorce (though in special instances some can inveigle a tactical *annulment*), but Mivart embodied the Church’s long-standing difficulty in dealing with the realities of sexual life (from contraception to priestly sex abuse scandals) by deeming this perfectly reasonable reform in Britain’s secular law would promote “hideous sexual criminality” and “unrestrained licentiousness.” Papa Darwin was not amused with this fuming attack on his son’s advocacy (again perhaps manifesting that lamentable “smugness” trait).

Incidentally, Darwin critic Windchy (2009 98) argued a lot like Wiker when he explicitly mentioned the Mivart episode as his sole example of how the Darwin camp could “punish their opponents,” but funneled the facts into the *Kulturkampf* frame by broadly characterizing George Darwin’s proposal as “recommending some liberalizing of divorce laws in the interests of eugenics. Mivart slammed the idea as just the sort of moral breakdown to which natural selection theory was bound to lead.” Windchy did not speculate on the converse logic of his own position: namely, whether a spouse having to endure mental or physical abuse in a marriage they could not escape (explicitly following Catholic but not Protestant dogma here) represented “just the sort of moral breakdown to which” a theology-driven *inability* to accept some form of “natural selection theory was bound to lead.”

Admittedly, all these glosses on Darwin's "lies" were far less exaggerated than, say, the image of the naturalist in the clever 2012 Claymation movie *The Pirates! Band of Misfits*, based on the Gideon Defoe book series. In their wacky world of British science ("The Royal Society: Playing God Since 1687") the young Darwin is so utterly smitten with the new Queen Victoria that to curry her affection he duplicitously nicks the last remaining dodo, the beloved mascot of a group of dim but decent pirates who had mistook the animal for a parrot. Darwin does mend his criminal ways somewhat once he realizes Her Majesty is actually a murderous knife-wielding anti-pirate ninja who only wanted the bird served as dinner for the elite "Rare Creatures Dining Club" of similarly ravenous world leaders. Unlike Windchy and Wiker, though, the movie's makers were deliberately (and successfully) *trying* to be funny.

1.5 Section 3—The "Darwinism" threat, what are god(s) to do if natural causation applies everywhere.

Having seen how superficial Wiker's treatment of Darwin's theoretical contribution was reinforces the idea that what is really bothering him is that big "lie" part, which for him turns out to be just one: "Darwin's insistence that evolution be godless is the cause of much mischief and not a little mayhem," Wiker (2009a; xi). Wiker doesn't seem to have a problem with the equally "godless" disciplines of physics, chemistry or geology, which relates ultimately to the highly parochial focus of designer thinking. Few religious believers these days get pangs of theological angst over the idea that the Alps came about by natural means, or that conceding a natural origin for mountains somehow causes all gods to go *poof!* But that is exactly the slippery slope that thinkers like Wiker require Darwinian evolution to slide down once living things (and especially *us*) are included.

This is a long-running battle, predating Darwin by a good stretch, percolating in Christian theological circles at least since the Franciscan priest John Duns Scotus (1266-1306) proposed that the same methods of reason could be applied to God and the creation—in contrast to his contemporary, the Dominican friar Thomas Aquinas (1225-1274), who regarded godly intentions and creative activities as too inscrutably remote for human ken—with the eventual fallout being that once something gets pegged as a natural phenomenon it ought to stay that way, Noll (2011, 148). Scotus was also responsible for the First Cause argument for the God of Abraham, by the way, John Williams (2013), which remains one of the most popular "proofs" to this day.

The early practitioners of the Scientific Revolution took Scotus' logic and ran with it, which wasn't too theologically disturbing so long as the scientists were comfortably believing Christians, but as the centuries wore on it became progressively less relevant to plop God down at the end as divine string puller. Take Isaac Newton (1642-1727). As noted by Davis (2009), the devout if quirky (non-Trinitarian and alchemy groupie) science genius had no difficulty imagining God mediating all the action at a distance his mathematics described so succinctly. But that same mathematical comprehensiveness opened up the possibility that the gravitational clockwork—a metaphor posed by his rival Gottfried Leibnitz (1646-1716), which Newton did not embrace—operating over vast timespans without need for external adjustment, so that by the time Pierre-Simon Laplace (1749-1827) was asked by Napoleon (1769-1821) to explain why there was no mention of God in his latest work refining the deterministic Newtonian description of planetary motion, Laplace is said to have replied, "I have no need of that hypothesis." Whether or not the Christian version of God existed, it was possible to imagine that entity not meddling in the way matter slogged around in the universe, rendering God irrelevant *in that context*.

Moving on to living things, Darwin was certainly not the only participant in the game of whittling down the deity's operating parameters. Cuvier had that ball rolling in the 18th century the moment he recognized that some once living creatures had gone extinct, Van Wyhe (2008, 8-9), for the biblical concept of a "perfect" initial Creation frowned on the idea that anything could have vanished in that way since (a notion that will resurface in the YEC Flood Geology hope that somewhere even today some

of the dinosaurs preserved on Noah's Ark only some 4600 years ago will turn up somewhere in Africa or Indonesia).

Once Darwin extended natural processes to the living realm it was inevitable for some theologians to regard Darwin's idea as inherently atheistic, such as Princeton theologian Charles Hodge (1797-1878). Indeed, Hodge (1874) reads surprisingly like modern *Kulturkampf* antievolutionists in submerging all the technical issues into a deep teleological sea (showing also how peripheral recent developments like the Big Bang or bacterial flagella are to the argument, since Hodge fielded the same themes without any of those specific examples at hand). Long before Jerry Falwell or Tony Perkins offered their 20th & 21st century Jeremiads, *Kulturkampf* concerns about the impending dissolution of society into a cesspool of crime-ridden drunken Sabbath-scoffing anarchy ran as a leitmotif in 19th century American dispensational fundamentalism, Marsden (2006, 32-39, 66-68).

Beyond that was the role biblical interpretation played as a suppositional framework that did not allow much wiggle room. "Among the most intransigent foes of organic evolution were the premillennialists, whose predictions of Christ's imminent return depended on a literal reading of the scriptures," Numbers (1982, 538). Marsden (2006) surveys the premillennialists' undulating role in his history of American fundamentalism, including the influential Hodge provoking doctrinal squabbles to defend orthodoxy.

Wiker failed to perceive this fundamental theoretical distinction as an option on the table: one between the recognition of the explanatory power of "secondary" natural processes (and hence the "irrelevancy" of deities as a working factor, no less than for Laplace's celestial dynamics) and the deeper philosophical issue of whether the operation of natural laws rendered the existence of "primary" causes such as gods so unnecessary that atheism becomes the simplest alternative.

Neither option seems particularly agreeable for creationist geologist John Morris (2013a), son of the Creation Science pioneer Henry Morris, disparaging the idea of "relegating God to the mundane task of overseeing the evolutionary process" (implicitly assuming that such matters are indeed so "mundane" to begin with) and thus denying "His awesome power in creation." For the Flood Geology believing Morris, only an extrovert Cecil B. DeMille special effects blockbuster God is apparently worthy of his attention or allowed as a permissible interpretation of Scripture, as though one generating and sustaining every molecule and moment in a universe billions of years old and billions of light years in expanse was somehow paltry and niggling—which may be compared to the perspectives of a variety of Christian evolutionary scientists, such as biologist Ken Miller (1999; 2008), geologist Patricia Kelley (2009), and paleontologist Robert Asher (2012c).

Darwin himself tried to keep those issues separate, never claiming that belief in evolution required the rejection of all religious convictions, Van Wyhe (2008, 58), but such ambivalence annoys Darwin critics like Windchy (2009, 18-21). Wiker (2009a, xi-xii) also refuses to allow Darwin the luxury of his view because Wiker is tilting at far larger windmills: "What is certain is that Charles Darwin, despite his fine personal qualities, was dishonest in this regard, and Darwinism consequently makes for bad science however illuminating it is in regard to many of the details of evolution."

This theological visor hangs over much of Intelligent Design coverage of evolution. The one gripe Flannery (2008) had regarding Davies (2008) was that *The Darwin Conspiracy* sought to give Wallace priority in inventing "Darwinism"—a terrible dishonor in Flannery's view because of the rejection of strictly materialist causation by a "Wallaceism" attracted to the creative intervention of some Spirit or Mind. But then, on the *Kulturkampf* antievolution circuit, "Darwinism" is the preferred dirty word personification for evolution (often conjoined with Marxism and Freudianism)—a "fixation" Scott (2007, 72-75) explored, noting there is no counterpart usage of "Kelvinists" in physics, or "Lyellists" in geology. The obsession was particularly methodical for Dean & Kenyon, where the 1993 *Of Pandas and People* revision replaced all references to "evolution" with "Darwinism" to hit the apologetic nails home, Scott & Branch (2009, 92-93).

But where do material explanations peter out and Mind come into play? Just how far-reaching the threat of “materialism” in the ID worldview is indicated by the founder of the *Discovery Institute*, George Gilder (2004), fuming that “Darwinian materialism is an embarrassing cartoon of modern science,” and contributing to a decline in educational excellence—why biology classes even “espouse anti-industrial propaganda about global warming.” Horrors!

The *Discovery Institute* posting of a later opinion piece by Gilder (2006) for the *National Review* sported a similarly sweeping subheading: “The Darwinian theory has become an all-purpose obstacle to thought rather than an enabler of scientific advance”—which might come as something of a downer for the tens of thousands of scientists muddling along in the various disciplines constantly inspired and invigorated by evolutionary assumptions fueling their imagination and research programs. If only they knew how blinkered their benighted vision was compared to the clarity emanating from Gilder (2004): “Intelligent Design at least asks the right questions.” Though nailing down exactly what those questions are supposed to be, and whether any valuable ID insight can ever exist for them, has (as we shall see in the chapters to come) proven to be the contentious devil in the details.

The deep issue that Flannery, Wiker and Gilder are waltzing around concerns one of Darwin’s great contributions to how living things were assessed in an evolutionary framework: to dispense with the haphazard nature of vague multiple creation events favored by colleagues like Charles Lyell or opponents like Richard Owen and put the full weight of the mounting evidence on the scales. There was an explosion of identified species to account for by the time Darwin came along, from a few hundred known in the 17th century of naturalist John Ray (1627-1705) to *hundreds of thousands* a century later, and the number was continuing to climb rapidly all through Darwin’s 19th century, Van Wyhe (2008, 8, 36).

With every new living species and extinct fossil that turned up, every geological observation that pushed the age of the earth ever farther back beyond Eden, every microscopic discovery of the similarity of underlying biology that linked seemingly disparate forms, the old God of simple overt meddling (let there be light, angiosperms, crickets, people) gave way to a more circumspect God of the Gaps where there were progressively fewer gaps to play in. Darwin opponent Louis Agassiz reflected this conundrum, positing divine creation of whole ecological communities, a view that Darwin thought “utterly impracticable rubbish,” Browne (2002, 51-52).

The only way out of this vise is to start erasing some of the explanatory terrain to make more gaps, or at least enlarge the ones you might think you can still defend. This may be good for theological psychology, but is a risky maneuver if you’re angling to play science—especially so if you can’t replace the erased material with anything like a clearly defined design alternative. But Wiker doesn’t even bother to do that, never addressing his own dangled reference to those “many details of evolution” for which Darwinian thinking proved useful—the structure Wiker’s ID is obliged to sweep away in order to give their God some fightin’ room. Instead he is on the same express lane as Flannery and Gilder, reinforce his own mythic view of what Darwinian thinking was supposed to mean for *religion and society*.

It’s the same one that loomed for the first opponents of evolution, from Darwin’s old *Beagle* captain, Robert FitzRoy (1805-1865), scientists from Adam Sedgwick to St. George Mivart, but also for Darwin’s allies, such as Charles Lyell, Browne (2002, 52, 93-95). However much it might ostensibly embody the cherished icons of 19th century society, namely progress through individual competition, most everybody then and now knew precisely where all this “common descent” thinking would lead. Whether they were scientists grappling with the technical argument or fulminating clerics defending sacred turf, there was simply no way to cordon off *human* ancestry and all that entailed: our behavior and beliefs as well as the genesis of our physical bodies. Darwin eventually sidled around to the topic in 1871 with *The Descent of Man*, and how all that has played out is covered in **Chapter 5** of Downard (2004).

1.5 Section 4—Darwin and Wallace in the religious badminton game antievolutionists need to play.

This issue of how we fit into the natural evolutionary picture has drawn Alfred Wallace posthumously into the current Darwin-bashing fray. Wallace differed from Darwin in many non-scientific ways, notably Darwin the politically conservative landed gentry versus the radical socialist Wallace. Though they had very different backgrounds, Browne (2002, 23-33) noted there were many parallels in their lives (especially regarding an abiding fascination with nature and a keen observational sensibility). I find Wallace very likable, and a man of admirable modern sensibilities in many ways—for instance, in 1865 he criticized John Stuart Mill (1806-1873) for his curious opposition to general use of the secret ballot, Slotten (2004, 222).

Regarding the deep questions of religion, both were largely agnostic, Edey & Johanson (1989, 74, 91) and Brooke (2010). Wallace's reading of Thomas Paine made him skeptical of Christianity specifically as a teenager, and later characterized one 1840s naturalist's attempt to reconcile the Bible with science as "ridiculous," Slotten (2004, 12, 21). Darwin's path was more circuitous, falling away from Christianity around age 40, after the death of his father and before the death of his daughter Annie in 1851 (surviving scarlet fever, she probably had tuberculosis also, poorly understood in those days), Quammen (2006, 56-57, 113-120). He appears to have arrived at a full-blown Wallace-style skepticism about popular religion generally later in life, when he expressed "startlingly harsh views of Christianity" in his *Autobiography*, Browne (2002, 431-434). As for the Bible in particular, an 1880 letter written to someone curious about his faith recently came to light, and Darwin was concise and unequivocal: "I do not believe in the Bible as a divine revelation & therefore not in Jesus Christ as the son of God," Coyne (2015co).

Some of this process appears to have been eased by the change in his relationship with his wife. While initially there had been a "painful void" between them on religion, as Quammen put it, Browne's account of Darwin's religious uncertainty noted that Emma's tolerance for differing views had also grown over the years, perhaps owing to her own far from conservative theological inclinations, Ruse (2013, 216) noting: "Emma used to attend the local Anglican parish, although she refused to take communion (because she did not think Jesus to be divine)."

Religion couldn't help but come up for thinking people trying to relate to a world where all aspects of it were pervaded by religious concepts and rituals. Neutrality was thus not an option, unless you could squirrel yourself away in the country and create a world of your own where it didn't really matter whether the Pope in Rome or the Queen at Windsor was the true head of the church, or whether there was any true church to begin with. That's how Darwin apparently whiled away the years at Down House. Quammen (2006, 165) probably summed up Darwin's focus best: "Work was his opiate, and science was his religion."

While a contemporary skeptic like Wheeler (1889, 97-98) was content to peg Darwin as an agnostic, some religious apologists might prefer Darwin to be an atheist to keep their opposing turf more clearly defined. One curious episode was recounted by Glenn Branch (2014aq-ar) where Darwin's autobiographical characterization of himself as having been "a Theist" when younger was turned by several 1920's antievolutionists into him having being an "atheist" based on a *misprinted* secondary account of one of William Jennings Bryan's antievolution speeches.

Where Wallace departed most from Darwin did not involve the central role of natural selection acting on variation to generate the physical structures of life. Both had similar concepts of natural variation, though Bowler (1976) noted Darwin and Wallace arrived at them by somewhat different paths, and if anything Wallace gave natural selection a preeminent position that Darwin didn't even allocate for it—a technical fine point that Flannery (2010) couldn't get a grip on when flailing Stephen Jay Gould posthumously, or Flannery (2012a) jousting with Michael Shermer (2012a).

It was Darwin who didn't think natural selection covered everything—for instance, that it played no role at all in what are now called the isolation mechanisms that help fission species, Slotten (2004, 234-235). Ayala (2007, 45) indicated Wallace was more interested in the evolution of species than Darwin was, thinking in terms of progressive and continuous change, while Darwin focused more on the deeper issue of how the design of living things emerged, and (rather like Stephen Jay Gould) accepted the idea of long periods of boring stasis (such as the occasional “living fossils”) without trouble.

Darwin would eventually even flirt with Lamarckian inheritance of acquired characteristics, something easier to do in the pre-genetic days when no scientist actually knew how anything really ended up inherited. Given Wallace's firm rejection of Lamarckian inheritance, his conceptualizing of what Mayr would eventually characterize as the “biological species concept” that involved successful breeding as the defining feature of natural species, and even seeing a distinction between what would now be called stabilizing vs. directional selection, Kutschera & Hossfeld (2013) regard Wallace as an early proponent of the neo-Darwinian Modern Synthesis version of evolutionary theory developed by Mayr and others in the 20th century—ironically, exactly the model that ID opponents are most strenuously opposed to.

Where Wallace divided with Darwin most were on the level of selection, and of course the role of “superior intelligence” at either end of the process (the origin of life long ago and the far more recent appearance of self-aware minds like us to wonder about it all).

Regarding the first, Browne (2002, 18, 57), Quammen (2006, 158) and Ruse (2013) have variously noted that Wallace thought selection operated more at the group level, not winnowing individuals primarily in the way Darwin thought (this issue has remained a hot one in evolutionary thinking to this day, as will be explored in later chapters). Wallace also downplayed Darwin's highlighting the similarity between artificial and natural selection—Wallace deemed artificial human selection as less an analog because it dealt with animals removed from their natural environment, a point he drove home from the start, in the 1858 piece that ended up in the Darwin & Wallace (1858) Linnean presentation—though Wallace did mellow somewhat on this point after Darwin died, Gregory (2009a, 7). Wallace definitely couldn't accept Darwin's idea that sexual selection (animals selecting a mate independent of how well this affects their adaptive fitness) could play out along with natural selection, especially regarding human evolution, Slotten (2004, 256-258, 261-262, 288-297, 353-356) or Quammen (2006, 213-216).

Having given up belief in Christianity as a teen, Wallace never invoked traditional religion as a designer explanation for the Mind meddling every so often in what was functionally a “survival of the fittest” Neo-Darwinian framework—incidentally, British philosopher Herbert Spencer (1820-1903) originated the “survival of the fittest” term before *Origin of Species*, and Wallace adopted it as a catchier phrase than “natural selection” and recommended Darwin use it too. Wallace was attracted instead to the new seemingly observable (and hence more “scientific”) spirit mediums, mesmerism and phrenology cluttering Victorian society. Initially skeptical of spiritualism, he was drawn to it after his sister Fannie got into it, and attended his first séance in the 1840s while himself on the rebound from a failed love affair. His convictions about spiritualism wavered, especially after his sister died, but was reassured after he heard from her via a medium.

This personal connection is fairly common among spiritualist believers, and Wallace shared his interests with a lot of prominent figures, from chemist and physicist William Crookes (1832-1919)—with whom Wallace collaborated on psychic research in the 1870s concerning the medium “Dr.” Henry Slade (1835-1905)—to pioneering psychologist and philosopher William James (1842-1910) and American railroad magnate Leland Stanford (1824-1893). An effort in 1876 to get the British Association for the Advancement of Science involved to investigate spiritualist claims scientifically fell flat (a move oddly reminiscent of Intelligent Design efforts for legitimization today). There was also a class issue, as spiritualism was very much a working class movement (Crookes was self-educated much as Wallace was). Darwin's cousin Francis Galton (1822-1911), statistician nerd and originator of making better

people through eugenics, was also interested in spiritualism, as was *Vestiges* author Robert Chambers, but Darwin himself, his son George, and Huxley were far less impressed. See Desmond & Moore (1991, 538, 647), Milner (1996; 2009, 348-349, 389-390), Shermer (2001, 159-198) and Sloten (2004, 5-7, 230-248, 305-314, 326-351, 384-385, 396-397, 459-450) for plenty of back and forth on the Darwin-Wallace spiritualism issue.

Though discredited fairly quickly, phrenology (the boneheaded idea that human moral and intellectual characters were reflected in the physical contours of the skull) was deemed a respectable pursuit in the early 19th century, permitting Wiker (2009a, 4) to briefly note Robert FitzRoy was “a casual devotee” of it—Wiker did not mention that Wallace was too. Indeed, even in 1896 Wallace was still insisting phrenology would eventually be accepted as a scientific description of the mind, Sloten (2004, 451). Way to go, Alfred.

The FitzRoy side of things brings to mind another topic: the political and cultural context of who believed in phrenology and why. Wallace was an agnostic socialist, but as Desmond & Moore (2009, 69-72) noted—a source Wiker cited elsewhere, remember—the phrenology believing FitzRoy objected to Darwin joining the *Beagle* expedition initially on political grounds: Darwin’s liberal Whig background clashed with FitzRoy’s conservative Church of England convictions (unsuccessfully bucking the reformist Whig tide, the captain lost a bid to win a seat in Parliament as a Tory).

For Wiker (2009a, 51-52), though, the context of belief was simpler: “Phrenology was the most advanced science of the materialists of the time.” That argument would have seemed much more tenuous had Wiker acknowledged non-materialist Wallace firmly believed in it too, linking the brain with the mind for the first time, and attached as well to issues of working class reformist politics, Sloten (2004, 203-205). To see that phrenology might not be a simple analog for “materialism” Wiker might again have consulted Desmond & Moore (2009, 43), concerning Darwin’s exposure to the issue when studying medicine in Edinburgh: “The tension was evident between the shackling determinism of phrenology which allowed little personal or racial improvement, and the liberating Enlightenment evolutionism with its faith in change and perfectibility.”

It was Wiker’s own pigeonholing that transformed the determinism of skull bumps into a rejection of some nonmaterial *geist* operating underneath. The decidedly non-materialist Quakers were also attracted to phrenology, as was Samuel George Morton (1799-1851), who helped found 19th century racial “physical anthropology,” again duly reported by Desmond & Moore (2009, 45-48). As Morton (raised a Quaker but later an Episcopalian) believed the Bible supported his separately created-and-not-equal version of human races, “materialist” presumptions were by no means the only contributors to 19th century pseudoscience.

All of which rains a mite on the *Discovery Institute* parade of Wallace’s mummy as a prescient harbinger of Intelligent Design, tracked by *The Sensuous Curmudgeon* (2008h; 2011b-c) blog. Launched by Michael Flannery (2008), Casey Luskin (2008k) and David Klinghoffer (2009q-r), Denyse O’Leary (2010a) soon harrumphed that Wallace had been drummed out of the Darwinist camp even though he “was a much better naturalist than Darwin.”

The Wallace v. Darwin hall of mirrors show continued in the *Discussion Guide* for the 2010 *God & Evolution* book edited by the *DI*’s Jay Richard, as *Faith & Evolution* (2011, 11) further attenuated O’Leary’s take with a leading study question: “Why, according to Denyse O’Leary, was Wallace neglected and ridiculed, but Darwin lionized?” Meanwhile, at the *Discovery Institute* proper, Flannery (2011c) trumpeted his own new pro-ID Wallace book, Flannery (2011a), published by the *DI*, news of which duly reverberated in Klinghoffer (2011b) and *Evolution News & Views* (2011a) at the self-same *Discovery Institute*.

This wasn’t the first time that Wallace performed the role of shuttlecock in a creation/evolution competition, by the way. Levit & Polatayko (2013) noted that Tsarist-era Russian evolutionists were just as skeptical of Wallace’s appeal to “superior intelligence” as a way of accounting for the big issues of the

origin of life and human intelligence, and Wallace was readily recruited by Russian Orthodox antievolutionists much as American Judeo-Christian Intelligent Designers would a hundred years later.

Given the conservative political activism of the *Discovery Institute* (to be explored more fully in subsequent chapters, from whence cometh their funding to their current “scientific” skepticism about global warming) and the demographic reality that the bulk of DI authors are conservative Christians, it is a sign of a tortucan tunnel vision that Wallace’s overt spiritualist socialism was seldom on display. Flannery (2011c) stands out for ricochet acknowledgment of just how wide-ranging Wallace’s iconoclasm was, when he took a potshot at Quammen (2008) for noting Wallace’s “crank” side. Though interestingly, it was regarding just one paragraph culled from Quammen’s extended article in *National Geographic*, Flannery ignoring all the remainder where Quammen stressed what an extraordinarily gifted scientific observer Wallace was—getting so carried away in his umbrage that Flannery forgot to put a second quotation mark to tell where Quammen had left off and the Flannery riff began.

Flannery has continued to sidestep Wallace’s spiritualism, as in a twenty minute 2015 video extoled by *Evolution News & Views* (2015ab), in which Flannery described Wallace just as a non-Christian socialist. But Flannery was stepping that far only as an apologetic lever to counter the perception that the Intelligent Design movement were a group of right-wing Christians. Except it isn’t 1910, and Flannery would be hard pressed to nominate more than a thin handful of ID advocates of *today* who don’t fall plainly into the *Kulturkampf* conservative religious (mainly Christian) camp (David Berlinski and Michael Denton would start to exhaust the list right there).

Wallace’s socialist proclivities were fully understandable given the grinding poverty he knew firsthand permeated Victorian capitalism. As Sloten (2004, 365-373, 378, 387, 436) recounted, Wallace grew more politicized in the 1870s, embracing complete land nationalization along with demanding “reciprocity” in free trade and fretting over the impact of British trade deficits with France and the United States on the working poor. By 1885 his book *Bad Times* had written capitalism off as a failure, and in an 1887 speech Wallace flatly disapproved of all inherited wealth (which didn’t go over all that well to his well-heeled American audience), and was a fully committed socialist by 1889. All of which suggests that were Wallace alive today he’d have been tenting out among the Occupy Wall Street 99% protestors (in his day 536 landed peers owned 20% of Britain)—about as far as you can get from the *Heritage Foundation* groupies extolling the Intelligent Design brand favored by the commerce-friendly *Discovery Institute* today.

One of the more curious sides of Wallace was his dedicated opposition to smallpox vaccination as a dangerous delusion that was absolutely useless. Quammen’s brief allusion to this “crank” episode in his *National Geographic* article drew the ire of Flannery (2011c), who sought to deflate Quammen’s point by invoking a later analysis by Thomas Weber (2010) of Wallace’s anti-vaccination campaign to accuse Quammen of “not properly telling the complete story.”

But does “the complete story” undermine Quammen’s point much?

Weber had focused primarily on the dispute over applying statistical methods to vaccination data, of relevance to his audience at the Centers for Disease Control and Prevention, but did not address all aspects of Wallace’s involvement in the controversy, such as ones noted at length in Sloten (2004, 317, 422-436)—a book Weber listed in his references. Much like Weber, Sloten traced how Wallace’s opposition evolved over time: a complex mix of scientific objections, spiritualist connections (they were largely anti-vaccination) and political considerations stemming from the 1853 compulsory vaccination law in Britain (replaced by an even stiffer 1867 act that mandated prosecutions for failure to comply and thus hitting the poor most).

Sloten noted that Wallace’s antipathy towards standard medical practice might have been affected by the death of his eldest son (aged 7) in 1874, and unsafe procedures (such as unclean lances) contributing to genuine health concerns initially. Though like Darwin and quack medicine, Sloten (2004, 449, 452) spotted comparable quirky episodes when it came to Wallace’s health regimen: giving up his

vegetarianism for a meat diet on the recommendation of a sculptor friend to cure his asthma (it appeared to help), but taking up smoking cigarettes too, then being recommended as a remedy for poor respiration!

The underlying biology behind vaccination was only poorly understood—the work of Pasteur and Robert Koch (1843-1910) wouldn't clarify the role of germs and viruses until the 1880s, and the role of antibodies wouldn't be discovered for many decades (the antibiotic issue will be covered further starting in section 1.7 below). Ironically, another factor was the improved reporting of cases that made it appear that there had been a rise in smallpox 1871-1880, fueling the conviction that vaccination didn't work. All of this controversy and uncertainty initially attracted Wallace's attention, but soon broadened to the appealing social activist issue of its violation of individual rights.

All well and good, but even as vaccination techniques improved, Wallace acknowledged none of it, and failing eyesight in older age led to a rather sad episode where the tables he prepared for an 1890 commission on vaccination were riddled with errors. By 1898 Wallace's position had entrenched to ranting how "vaccination is a gigantic delusion" that "has never saved a single life." This later phase of Wallace's anti-vaccination campaign covered by Slotten was not addressed by the Weber paper, but would be relevant in assessing the full range of Wallace's opposition to vaccination. One may note here Wallace's own assessment of his temperament (reminiscent of the controversy-loving Darlington mentioned earlier), remarking late in the 19th century how he flourished most when fighting "an uphill fight in an unpopular cause," Slotten (2004, 455).

Any critical assessment of Wallace would need to consider whether, however honest and insightful the scientist could be in so many ways, whether every now and then he might also veer off the methodological rails during one of his uphill fights—his great credulity (shared by Crookes and many other otherwise scrupulous scientists) regarding the spirit medium Slade's parlor trick shenanigans would certainly be relevant here. That is, if "telling the complete story" really was the goal.

Such admixtures are alive and well as I discovered in 2013 whilst staffing a table our local secular societies have at two of our regional county fairs. A hyper-skeptical (and non-religious) visitor dropped by our booth at the Idaho fair, firmly believing evolution and vaccination were unproven notions, and also doubting that AIDS was caused by the HIV virus. It turned out his grounding for these convictions rested on a few websites that were somehow immune to his otherwise blanket skepticism when it came to the stuff actually published in science literature and which he had never bothered to read.

Regarding Wallace's resurrection as avatar of Intelligent Design, fine details like those noted above regularly get lost in the march to the broader conclusion of assailing "materialism." The conservative DI fellow Klinghoffer (2011b) reflected this: "Anticipating modern intelligent design theory, Wallace was not speaking here about God in any traditional sense," without ever identifying what Wallace *was* speaking about—and as though "modern intelligent design theory" had ever defended anything but a very specific Judeo-Christian designer (as we'll see explicitly with Phillip Johnson and William Dembski).

Michael Flannery (2009b) trod the same path, distinguishing Wallace's views from creationism as it was not "even Biblical at all." In a chapter devoted to the "clash of worldviews," Flannery (2011a, 76-81, 85) explored *Darwin's* religious views at length, while alluding to Wallace's spiritualism without elaboration. Flannery (2011d) more obliquely referred to Wallace's "non-Christian theistic creationism," but Flannery (2013a) did not bring up the issue at all when he insisted Wallace was remembered less than Darwin today because of "Darwin's power of promotion *not* the power of his facts" proving more congenial than Wallace's "intelligent evolution" when offered to "an age groping toward secularism."

So just what was Wallace's non-creationism and did it match well with the modern vision of Intelligent Design as embodied by Michael Flannery's current iconic trio of Gonzalez & Richards (2004), Behe (2007b) and S. Meyer (2009a), or Klinghoffer (2015q) channeling John West (2015d)? As Slotten (2004, 147) put it, Wallace "had discovered a true natural system, one without a predetermined balance, teleology, or divine plan." Wallace's growing spiritualist convictions eventually overlaid that

foundation, carefully tracked by Slotten (2004, 268-270, 281-282, 284, 359, 382, 393-395, 409-418).

When Wallace (1869) first voiced his view that the origin of human consciousness resided outside the bounds of natural selection (which in his view otherwise accounted for all of the animal kingdom, up to the “animal” side of man), it was informed totally by his spiritualist convictions, not Christianity in any guise (or appreciation of neurobiological data, for that matter, little of that being known in the 19th century). Michael Flannery’s selective ID spin on Wallace’s 1869 shoe drop, video linked by *Evolution News & Views* (2015ab), may be compared to its context covered by Slotten (2004: 268-270).

By 1886, when he embarked on a lengthy American lecture tour, Wallace was dropping allusions to a guiding spiritualist-based Mind that gave a teleological frame for human evolution, embracing life after death as a balm to transcend the social inequalities so visible in the physical world, and continued the refrain in Wallace (1910). All this talk of some “higher intelligence” guiding human evolution to a loftier moral plane sounds a lot like the sort of vague blather of New Age believers today, and it could be argued that Wallace’s views here were simply a spiritualist twist on traditional religious hope for “pie in the sky by and by when you die”—a karmic *Get Out of Jail Free* card, dressed up in the new scientific guise of his socialist spiritualism.

But at no time did Wallace ever claim that his proposed “will-force” in any way negated the sweeping relevance of *natural selection* for the origin and development of physical species via shared common ancestry (the big issue of Darwinian evolution that Intelligent Design advocates bristle over today). He affirmed it in his 1888 book on *Darwinism*, and would continue to all the way down to Wallace (1909, 411): “that the theory of Darwin is the only one that is in accordance with Nature herself.” In this respect, the belief in natural common descent, Wallace was exactly as “Darwinian” as Darwin. This is why Norman Geisler (1983b, 14) of the Dallas Theological Seminary felt obliged to sideswipe Wallace as having surpassed Darwin “in replacing God with evolution.”

Rolling around in the disingenuous nadir of Wallace-napping we may conclude with the succinct O’Leary (2010a): “Wallace’s only serious crime was not to be a materialist atheist”—implicitly cordoning off all “Darwinism” as inherently atheistic while letting Wallace into the club even though most of Wallace’s evolutionary views matched up with Darwin, and none of his non-Christian spiritualist beliefs would ever be allowed through the front door of the Christian denominations that comprise the bulk of ID defenders. Wallace admirer George Beccaloni (2010) spotted the glaring anomaly in the whole Wallace co-opting campaign: “How ironic that spiritualist beliefs should be used to support Christian ones!”