SYNOPSIS: We propose a three-stage frame for revising religious education programs for elementary through high-school age groups. The aim would be to nurture healthy, resilient, and reflective individuals well prepared to handle the challenges of a fast-changing, diverse, interconnected, and increasingly digital world. Our educational platform centers on science-based learnings that are mostly off-limits to public (and many private) schools, owing to enrollments of children from religiously fundamentalist families.

STAGE 1 (K–5th). Elementary-age children must be offered the true story of their origins and identity from which they will acquire pride of ancestry and discover that they are related to everyone and everything — even the stars. This is the stage of learning that early 20th century educator Maria Montessori called “cosmic education,” that esteemed biologist Edward O. Wilson calls “the epic of evolution,” and that we call “the great story.” Historian David Christian recently gave a secular name to the interdisciplinary research that supports this big-picture form of education: “big history.”

STAGE 2 (6th–8th). Children navigating the challenges of puberty must be advised that the ancient instincts they have inherited have not kept pace with fast-changing cultures and technologies — and that caution, support, and compassion are therefore essential. Learning to observe (“witness”) each of the four components of their evolved, quadrune brain is a skill no less necessary for successful living than is basic literacy.

STAGE 3 (9th–12th). Older adolescents should be encouraged to reflect on the cultural and technological gifts (and the unique challenges) they have inherited from preceding generations — and their own generational opportunities to contribute to the immense journey of life. Philosophical questing, skeptical inquiry, social/environmental activism, and meaning-of-life discussions are easily evoked and supported at this stage of life.

Notes:

1. This document is an APPENDIX to “Failing Our Youth: A Call to Religious Liberals”, published in Huffington Post, December 2012.

2. This 3-stage platform for children’s religious education in progressive churches is not meant to supplant existing curricula for teaching religious identity, values, world religions, etc. Rather, it is a systemic frame that is offered as a crucial thread (ideally, the foundation) for progressive religious education that is both relevant and attractive to children and youth today.

3. The remainder of this document explores the three stages in detail, with links to existing curricula.
Stage 1: K – 5th grade

“My Universe Story”

Where did I come from? What is my home? Who are my relatives?”

Content and methods: Drawing upon the new academic discipline of Big History, children in their "wonder years" will be introduced to the broad sweep of 13.7 billion years of cosmic, geological, biological, and cultural evolution. Engaging story formats, songs, dramatic scripts, simple rituals, and hands-on projects are ideal modes of content delivery for this age group. Big concepts and patterns will be conveyed by exploring topics and examples that children naturally have a fascination for (e.g., supernovas, the solar system, volcanos, fossils, dinosaurs, glaciers, mammoth hunters, animal companions, and all creatures great and small). Progressive values would be encouraged indirectly — that is, embedded within the stories, scripts, and parables through which the "epic of evolution" (the first scientifically accurate origin “myth”) is conveyed and celebrated.

Examples:

• In learning that supernovas created the very atoms of their bodies, kids will celebrate that they are made of “stardust” — they are children of the Universe.

• In learning about the common ancestry they share with all creatures alive today (all the way back to bacteria!), children become Earthlings, proud of their ancient heritage and aware of how their bodies still bear the traces of this evolutionary journey.

• In learning about human inventiveness, including the ability to make fire, cook food, fashion weapons, and create clothing and shelter to survive in every climate, children will trace the spread of ancient humans out of Africa and onto each of Earth’s continents. An appreciation of world geography and the human journey will help them become global citizens eager to pass forward to future generations the gifts that they themselves have inherited.

Character-building outcomes: Children feel at home in the Cosmos and delight in humanity’s shared story that makes all humans cousins and all creatures our kin.

Skeptical inquiry and freethinking: Indirectly, children will begin to pick up the importance of observation, testing, and openness to new discoveries — all of which have made the globally shared scientific endeavor “the best tool ever devised for understanding how the world works.” (Quotation from Michael Shermer, publisher of Skeptic Magazine.) Teachers are advised to draw attention to any lesson content that had not yet been discovered when they themselves were children — and to wonder aloud whether any of the children in the classroom might contribute new knowledge when they grow up.

Note: For progressives who fear that presenting the epic of evolution as the actual (and ever-updatable) origin story — rather than merely one among many creation stories — please read Connie Barlow’s “Imprinting Is Not Indoctrination” at http://thegreatstory.org/imprinting.pdf.
Advocates of cosmic education:

• Joel Primack & Nancy Ellen Abrams
  “Without a meaningful, believable story that explains the world we actually live in, people have no idea how to think about the big picture. And without a big picture, we are very small people. A human without a cosmology is like a pebble lying near the top of a great mountain, in contact with its little indentation in the dirt and pebbles immediately surrounding it, but oblivious to its stupendous view.”
  — The View from the Center of the Universe, 2006

• Loyal Rue
  “The new naturalism does a superior job of telling everybody's story. It is more durable than metaphysical perspectives precisely because it rejects claims to finality, inviting upon itself scrutiny and falsification. And it gives us what is to date the most reliable and satisfying account of where came from, what our nature is, and how we should live.”
  — Everybody's Story, 2000

• Connie Barlow
  “Tell me a creation story more wondrous than the miracle of a living cell forged from the residue of an exploding star! Tell me a story of transformation more magical than that of a fish hauling out onto land and becoming amphibian, or a reptile taking to the sky and becoming bird, or a mammal slipping back into the sea and becoming whale! Surely this science-based culture, of all cultures, can find meaning and cause for celebration in its very own cosmic creation story.”
  — Green Space, Green Time: The Way of Science, 1997

• Brian Swimme
  “The creation story unfurling within the scientific enterprise provides the fundamental context, the fundamental arena of meaning, for all the peoples of the Earth. For the first time in human history, we can agree on the basic story of the galaxies, the stars, the planets, minerals, life forms, and human cultures. This story does not diminish the spiritual traditions of the classical or tribal periods of human history. Rather, the story provides the proper setting for the teachings of all traditions, showing the true magnitude of their central truths.”
  — The Universe Is a Green Dragon, 1984

• Maria Montessori
  “Educationalists in general agree that imagination is important, but they would have it cultivated as separate from intelligence, just as they would separate the latter from the activity of the hand. They are the vivisectionists of the human personality. In the school they want children to learn dry facts of reality, while their imagination is cultivated by fairy tales, concerned with a world that is certainly full of marvels, but not the world around them in which they live. On the other hand, by offering the child the story of the universe, we give him something a thousand times more infinite and mysterious to reconstruct with his imagination, a drama no fable can reveal.”
  — To Educate the Human Potential, 1948
Existing Curricula:

• **Born with a Bang!** - richly illustrated children’s book trilogy by Jennifer Morgan
  [http://thegreatstory.org/kids.html#bang](http://thegreatstory.org/kids.html#bang)

• “My Universe Story” - 32 weeks, using “Great Story Beads” project, by Connie Barlow
  [http://thegreatstory.org/beads-curric.pdf](http://thegreatstory.org/beads-curric.pdf) (in progress; half-year complete)

• “Great Story Beads” - crafts project w access to 16 different “big history” timelines

• “We Are Made of Stardust” - 8–12 week curriculum by Connie Barlow
  [http://thegreatstory.org/stardust-kids.html](http://thegreatstory.org/stardust-kids.html)

• “River of Life / Ancestor’s Tale” - multimedia walk back through time, encountering 40 ancestors we share in common with other creatures alive today. Curriculum by Connie Barlow, based on information in Richard Dawkins’s 2004 book, *Ancestor’s Tale.*

• “Coming Home to North America” - interactive storytelling of 65 million years of geological change, evolution, and animal migrations to and from North America. Curriculum by Connie Barlow.

• “Evolutionary Parables” - playful dramatic scripts celebrating major events or themes within the epic of evolution; multi-author.
  [http://thegreatstory.org/parables.html](http://thegreatstory.org/parables.html)

• “Tree Talks About Death” - interactive storytelling in 4 episodes, by Connie Barlow

• “Out of Africa” - participatory curriculum **needed to be developed** of human evolution in Africa, followed by human journeying around the world — with an emphasis on continental-scale geography and cultural adaptations and innovations that were necessary for humans to live in new climates and ecosystems. Fascinating aspects of this curriculum would include (a) learning which continents familiar foods are actually native to (e.g. corn in the Americas, wheat in Turkey, oranges in southern Eurasia); (b) which continents offered animals for domestication (e.g. chickens in Asia, turkeys in North America, cattle and horses in Eurasia, llamas in South America); and (c) geographically related differences in human genetic differences (e.g. skin color for UV sun protection, immunities to diseases, ability to digest milk, ability to detoxify alcohol, etc.)


More resources are available via [http://thegreatstory.org/kids.html](http://thegreatstory.org/kids.html).
**Stage 2: Middle School**

**“The Gifts and Challenges of Human Nature”**

*Why is life sometimes difficult? How can I thrive?*

**Content and methods:** The threshold of puberty is traditionally the time to ensure that young people are given an accurate and values-appropriate education about romantic relationships, sex, and addictive substances. Within just the past twenty years, during which new technologies for imaging blood flow in the brain were invented, the scientific understanding of human nature has advanced enormously. Notably, we have learned that our brain is an amalgam of 4 stages of evolution: beginning with our “Reptilian” survival and sexual instincts, onto which then evolved our “Old Mammalian” emotional and bonding instincts, followed by a surge in the neocortical development of our “New Mammalian” rational and problem-solving capabilities, and capped by prefrontal expansion of impulse control and discernment upon which all human cultures now depend. Unfortunately, the ancient “reward circuit” in the older portions of our brain is now dangerously out of sync with newly invented “supernormal stimuli” — processed foods, psychoactive drugs, alcohol, texting, digital entertainment and porn, etc. On the one hand, cultural advances have given us life-saving technologies (vaccinations, surgery, chemotherapy). On the other, young people today are exposed to a far greater menu of compelling attractions than their grandparents ever had to learn to manage or resist. Some of these attractions, especially if used in excess while the brain is developing, can wreak havoc for a lifetime.

**Our “Quadrune Brain” (nicknames at right)**

**Character-building outcomes:** Gaining skill in understanding and “witnessing” each of the four parts of our evolved brain • Cultivating gratitude for our animal instincts, while putting in place internal and shared systems of support to guard against the consequences of instincts running rampant • Building strength of will and follow-through in the prefrontal cortex (the executive center) • Shedding shame and blame, while nurturing compassion — especially when good judgment lapses in ourselves and our loved ones • Learning how addictive substances and behaviors re-shape the brain, and how to notice signs of increasing dependency • Distinguishing the distinct states (and correlated brain activity) of three different forms of love: lust, romantic attraction, and bonded commitment.
**Skeptical inquiry and freethinking:** The obvious and enormous practical benefit of understanding how evolution has shaped our instincts offers a crucial lesson in valuing empirical science over the “authority” of beliefs and doctrines developed in pre-scientific times. Nonetheless, science is also responsible for altogether new forms and intensities of “supernormal stimuli” that our ancestors never had to contend with. Thus the discoveries of science, the new technologies that ensue from those discoveries, and the cultural norms that shift as a result make it increasingly important for young people to engage in informed, thoughtful reflection about what constitutes healthy choices and behavior for them. Importantly, becoming “skeptical” of one’s own ability to *rationally* make the best choices is a crucial insight, given our inherited propensities for self-deception and our susceptibility to peer pressure.

**Advocates of evolutionary brain science education:**

- **Connie Barlow**
  
  “The next time we notice ourselves or a loved one missing the mark, we need to pause for a moment before casting blame or shame, or spiraling down into guilt yet again. Think about your great-great-great grandmothers — all 32 of them! Then ask yourself, ‘Which of my struggles did they have to deal with?’”
 
  — online interview, 2011

- **Deirdre Barrett**
  
  “The most dangerous aspect of our modern diet arises from our ability to refine food. This is the link to drug, alcohol, and tobacco addictions. Coca doesn’t give South American Indians health problems when they brew or chew it. No one’s ruined his life eating poppy seeds. When grapes and grains were fermented lightly and occasionally, they presented a healthy pleasure, not a hazard. Salt, fat, sugar, and starch are not harmful in natural contexts. It’s our modern ability to concentrate things like cocaine, heroin, alcohol—and food components—that turns them into a menace that our body is hardwired to crave.”

  — *Supernormal Stimuli*, 2010

- **Edward O. Wilson**
  
  “We exist in a bizarre combination of Stone Age emotions, medieval beliefs, and god-like technology.”

  — online interview, 2008

- **Michael Dowd**
  
  “Understanding the unwanted drives within us as having served our ancestors for millions of years is far more empowering than imagining that we are the way we are because of inner demons, or because the world’s first woman man ate a forbidden apple a few thousand years ago. The path to freedom lies in appreciating one’s instincts, while taking steps to channel these powerful energies in ways that will serve our higher purpose.

  — *Thank God for Evolution*, 2008

- **David Sloan Wilson**
  
  “The most extraordinary fact about public awareness of evolution is not that 50 percent don’t believe it, but that nearly 100 percent haven’t connected it to anything of importance in their lives. The reason we believe so firmly in the physical sciences is not because they are better documented than evolution but because they are so essential to our everyday lives. We can’t build bridges, drive cars, or fly airplanes without them. In my opinion, evolutionary theory will prove just as essential to our welfare and we will wonder in retrospect how we lived in ignorance for so long.”
• Michael Shermer

“I find it deeply interesting to know that when I fall in love with someone my initial lustful feelings are enhanced by dopamine, a neurohormone produced by the hypothalamus that triggers the release of testosterone, the hormone that drives sexual desire, and that my deeper feelings of attachment are reinforced by oxytocin, a hormone synthesized in the hypothalamus and secreted into the blood by the pituitary. Further, it is instructive to know that such hormone-induced neural pathways are exclusive to monogamous pair-bonded species as an evolutionary adaptation for the long-term care of helpless infants. We fall in love because our children need us! Does this in any way lessen the qualitative experience of falling in love and doting on one’s children? No more than unweaving a rainbow into its constituent parts reduces the aesthetic appreciation of it.”

— comments in Templeton Forum online, 2006

• Gary Wilson

“It’s common knowledge that dopamine-raising substances, such as alcohol or cocaine, can create addictions. Yet only about 10-15% of humans or rats that use addictive drugs (except nicotine) ever become addicts. Does this mean the rest of us are safe from addiction? When it comes to substance abuse, perhaps yes. Yet when it comes to unrestricted access to super-stimulating versions of natural rewards, such as junk food or even video games, the answer is no, although certainly not every user gets hooked.

The reason highly stimulating versions of food and sex can hook us — even if we’re not otherwise susceptible to addiction — is that our reward circuitry evolved to drive us toward food and sex, not drugs. Today’s high fat/sugar foods (75% of American adults are overweight, 35% obese) and Internet porn have the potential to hook even more people than do drugs. These supernormal versions of natural rewards can override our brain’s satiation mechanisms — the “I’m done” feeling — because concentrated calories and fertilization opportunities are your genes’ top priorities.”

— YourBrainOnPorn.com (lead article, undated)

• Naomi Wolf

“The onslaught of porn is responsible for deadening male libido in relation to real women, and leading men to see fewer and fewer women as ‘porn-worthy’. Far from having to fend off porn-crazed young men, young women are worrying that, as mere flesh and blood, they can scarcely get, let alone hold, their attention.”

— “The Porn Myth” (online article), 2003

Existing Curricula:

• Evolutionize Your Life (dvd) - by Connie Barlow and Michael Dowd, 2012.
  3.5 hours of educational video, divided into 6 segments. Intended audience is adults, but also suitable for teens, especially the segments on “Inspiring Naturalism,” “Physical Instincts,” and “Internet Gaming Addiction.”
  http://thegreatstory.org/evolutionize.html

• Quadrune Brain (online text, audio, and video resources) - compiled by Connie Barlow
  Four educational webpages chock full of hotlinked online resources, grouped as Reptilian, Old Mammalian, New Mammalian, and Advanced regions of the the human brain.
  Reptilian Brain: http://thegreatstory.org/evolved-brain.html
New Mammalian Brain: [http://thegreatstory.org/evolved-brain-monkey.html](http://thegreatstory.org/evolved-brain-monkey.html)

- **YourBrainOnPorn.org** - superb website for adults and youth holding progressive worldviews; at least four of the six short segments of the introductory video series are suitable even for 10 year olds. The site is the creation of physiologist Gary Wilson. [http://yourbrainonporn.com](http://yourbrainonporn.com)

- “**Remember Who You Are**” - by Connie Barlow
  12 – 14 week curriculum to assist (and ritualize) the passage from childhood to early adolescence, based in part on the stages-of-life work of Bill Plotkin (*Nature and the Human Soul*) and using sequential segments of *The Lion King* (Disney) movie to illustrate the stages and transitions. The objective is to encourage those making the transition to appreciatively reflect on their childhood selves and interests, while looking ahead to the multiple stages of human growth that lie ahead. [http://thegreatstory.org/lion-king/intro.html](http://thegreatstory.org/lion-king/intro.html)

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**Bill Plotkin’s 8-stage diagram of human development**

**DIAGRAM 3-3: THE EIGHT SOULCENTRIC OR ECOCENTRIC STAGES OF HUMAN DEVELOPMENT**

“Toward a New Religious Education Platform for Progressive Churches”
Stage 3: High School

“Life and Legacy”

Where am I going? What can I contribute?  
What is the meaning of life — and of my life?"

Content and methods: Many progressive churches wisely establish youth groups that, at the high school level, no longer rely on curricula. Instead, the students themselves determine topics of discussion, as well as social action and environmental projects. Check-ins that enable youths to honestly share what is going on in their lives are crucial elements of these groups. Even so, advisors can encourage the youth to choose to watch, and then discuss, videos/movies that invite reflection on new content and bigger questions.

Recommended Videos & Audios (this is just a rudimentary list):

• **History of the World in Two Hours (dvd)** - History Channel, 2011.  
  1.5 hours of educational video, divided into 4 segments (so a 4-week course would entail 20 minutes of video, followed by discussion). This is a superb way to revisit the “big history” learnings gained in the elementary grades, with an equal emphasis on physical, biological, and human cultural evolution.  

• **Evolutionize Your Life (dvd)** - by Connie Barlow and Michael Dowd, 2012.  
  3.5 hours of educational video, divided into 6 segments. Intended audience is adults, but also suitable for teens. Note: We also recommended components of this video for Stage 2 religious education, so a high school youth group would revisit segments for more adult-level insights and discussion.  
  [http://thegreatstory.org/evolutionize.html](http://thegreatstory.org/evolutionize.html)

• **Quadrune Brain (online text, audio, and video resources)** - compiled by Connie Barlow  
  Four educational webpages chock-full of hotlinked online resources, grouped as Reptilian, Old Mammalian, New Mammalian, and Advanced regions of the human brain. Note: Because these 4 pages link to a plethora (and continually updated) number of online free videos, there need be little overlap at the high-school level with what youth already watched as part of their middle school religious education.  
  Reptilian Brain:  [http://thegreatstory.org/evolved-brain.html](http://thegreatstory.org/evolved-brain.html)  
  New Mammalian Brain:  [http://thegreatstory.org/evolved-brain-monkey.html](http://thegreatstory.org/evolved-brain-monkey.html)  

• **YourBrainOnPorn.org (online text, audio, and video resources)** - The site is the creation of physiologist Gary Wilson, and is so rich with video and audio content (constantly being added to and updated) that it is well worth a revisit in high school to the resources on this website, even if some were sampled during middle school.  
  [http://yourbrainonporn.com](http://yourbrainonporn.com)
• “Symphony of Science (online music videos)” - A series of free, online music videos celebrating a meaningful, inspiring view of scientific knowledge and achievements. Each video is 3–5 minutes long. View in chronological order, from the oldest (“A Glorious Dawn”), thus in reverse order of how they appear on the webpage.
http://www.symphonyofscience.com

• “Bible Stories Your Parents Never Taught You” (online audio) - by Michael Scott Earl. This free online audio series (also in pdf) is essential listening for any youth who received traditional religious instruction (including world religions) in the younger grades. Why? Progressive churches tend to teach only the good and beautiful side of scripture and scriptural stories; thus in middle school or high school it is requisite to offer an opportunity for youth to reflect on the “dark side” of ethical values widespread in ancient times via the portions of the bible that were deliberately never taught. This, in itself, offers a superb opportunity for youth to grok the enormous advances made through history — not only in technological advances but also in cultural norms and social justice.
Note: For the background and rationale of why it is crucial to teach church youth the “dark” side of scriptural passages, read pages 6-11, “The Risk of Business As Usual in Religious Education,” which is the appendix of “Imprinting Is Not Indoctrination” (by Connie Barlow).

• “Death Through Deep-Time Eyes” - Because the theme of “Life and Legacy” is so crucial for high school (and young adult) reflection, it is highly recommended for youth to watch some of the online free videos linked in Barlow and Dowd’s webpage on this theme:
http://thegreatstory.org/death-programs.html

• Connie Barlow’s YouTube Channel (online videos) - Connie Barlow posts her own videos on YouTube and links to others via her ghostsofevolution youtube channel: http://www.youtube.com/user/ghostsofevolution.

TO BE CONTINUED . . .

Note: Please offer suggestions for improvement and recommendations of educational resources to add to these lists.

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