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Cognitive Mysteries, Reincarnation-Based Explanations, and Some Complications

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Abstract

There are a number of reasons to question the established molecular-only (or materialist) model of life. These include a number of extraordinary behaviors and more generally the unfolding inability to identify a DNA (or genetic) basis for many innate, and presumed heritable, conditions. Perhaps the simplest way to question materialism, though, is by looking at prodigal (human) behaviors. There you can find some incredible abilities and inclinations which strongly challenge the plausibility of materialist explanations. Herein three such phenomena will be considered: a childhood behavioral syndrome termed the Einstein syndrome; prodigious savants; and then the observed historical rise in our IQ's, termed the Flynn effect. In isolation, each of these mysteries offers plenty of puzzlement, but in the context of the lack of a genetic explanation for the variations in intelligence, it will be argued that together they represent a major conundrum for the modern understanding of humans. Additionally, and in possible support for dualism, some reincarnation-based explanations will be presented. Furthermore, the particular challenges and complications posed by the Flynn effect (as well as instincts) will be considered.

Keywords

Materialism, Dualism, Reincarnation, Prodigious Savants, Einstein Syndrome, Flynn Effect, Instincts

1. Introduction—Materialism, Intelligence, and Evolution

A straightforward depiction of the modern materialist vision of life was offered by the prominent biologist, Ursula Goodenough:

> [A]ll of us, and scientists are no exception, are vulnerable to the existential shudder that leaves us wishing that the foundations of life were something

> other than just so much biochemistry and biophysics. The shudder, for me at least, is different from the encounters with nihilism that have beset my contemplation of the universe. There I can steep myself in cosmic Mystery. But the workings of life are not mysterious at all. They are obvious, explainable, and thermodynamically inevitable. And relentlessly mechanical. And bluntly deterministic. My body is some 10 trillion cells. Period. My thoughts are a lot of electricity flowing along a lot of membrane. My emotions are the result of neurotransmitters squirting on my brain cells (Goodenough, 1998: pp. 46-47).

Underlying this biochemistry is presumed to be a natural selection beget set of DNA-encoded blueprints. DNA is viewed historically then as the language for the specification and differentiation of life at both the species and individual levels. Thus for example the reader has a different DNA code than that of their neighbors, or that of neighboring wildlife. And some of those genetic differences are presumed to be causally correlated with the innate differences found between the associated organisms. Of particular significance herein, that assumption is the basis for the field of behavioral genetics and an associated key (variable) attribute is intelligence.

Another general belief is that behaviors played an important role in evolution. As the prominent biologist Ernst Mayr wrote:

> There are reasons to believe that behavioral shifts have been involved in most evolutionary innovations, hence the saying "behavior is the pacemaker of evolution." Any behavior that turns out to be of evolutionary significance is likely to be reinforced by the selection of genetic determinants for such behavior (known as the *Baldwin effect*) (Mayr, 2001: p. 137).

Thus, the behavioral implications associated with a segment of DNA code should be significant to its treatment under natural selection. Therefore, a gene that furthers helpful behavioral inclinations should tend to spread over time, whilst those furthering unhelpful behaviors would tend to become less prevalent over time. Such a dynamic would then presumably have been significant to the evolution of primate intelligence, including that leading to ours. Additional smarts can be helpful.

A relevant (and literate) take on such a genetic foundation for our cognitive life is offered by the novelist Julian Barnes in his fine 2008 book, *Nothing to be frightened of* (Barnes, 2008). Barnes' perceptive work broadly addresses death and along with it quite a bit of life, and it opened with, "I don't believe in God, but I miss Him" (Barnes, 2008: p. 3). The book's intellectual framework reflects Barnes's acceptance of scientific materialism (or physicalism). In a relevant quote:

> We discover, to our surprise, that as [Richard] Dawkins memorably puts it, we are "survival machines - robot vehicles blindly programmed to preserve the selfish molecules known as genes". The paradox is that individualism—

> the triumph of free-thinking artists and scientists—has led us to a state of self-awareness in which we can now view ourselves as units of genetic obedience. My adolescent notion of self-construction, that vaguely, Englishly, existentialist ego-hope of autonomy, could not have been further from the truth. I thought the burdensome process of growing up ended with a man standing by himself at last—*homo erectus* at full height, *sapiens* in full wisdom—a fellow now cracking the whip on his own full account. This image… must be replaced by the sense that, far from having a whip to crack, I am the very tip of the whip itself, and that what is cracking me is a long and inevitable plait of genetic material which cannot be shrugged or fought off. My "individuality" may still be felt, and genetically provable; but it may be the very opposite of the achievement I once took it for (Barnes, 2008: pp. 93-94).

Thus we can presumably forget about free will (Barnes, 2008: p. 181). Furthermore, a bottom line description for any of our cognitive experiences should simply be molecules behaving as molecules ("Period").

Along these lines, neuroscience also has thorough confidence in the modern materialist paradigm. This shows up even in a popular book like V. S. Ramachandran's (with S. Blakeslee) *Phantoms in the Brain* (Ramachandran & Blakeslee, 1998). Therein we are informed that over the "last three decades" neuroscientists "have learned a great deal about the laws of mental life and about how these laws emerge from the brain" (Ramachandran & Blakeslee, 1998: p. 256). Ramachandran and Blakeslee wrote about the "exhilarating" progress that had been made but acknowledged that this process had left many "uncomfortable". As they wrote:

> [i]t seems somehow disconcerting to be told that your life, all your hopes, triumphs and aspirations simply arise from the activity of neurons in your brain. But far from being humiliating, this idea is ennobling, I think. Science—cosmology, evolution and especially the brain sciences—is telling us that we have no privileged position in the universe and that our sense of having a private nonmaterial soul "watching the world" is really an illusion (Ramachandran & Blakeslee, 1998: p. 256).

The authors then went on to offer the questionable consolation that this selfless state was consistent with an intellectual take on "Eastern mystical traditions".

This confident vision of mental life is easily questioned via a later more elaborate assessment of what is actually known and how much more elaborate work appears required to confirm the materialist model (Yuste & Church, 2014). Yuste and Church pointed that:

> [d]espite a century of sustained research, brain scientists remain ignorant of the workings of the three-pound organ that is the seat of all conscious activity. Many have tried to attack this problem by examining the nervous

> systems of simpler organisms. In fact, almost 30 years have passed since investigators mapped the connections among each of the 302 nerve cells in the round worm Caenorhabditis elegans. Yet the worm-wiring diagram did not yield an understanding of how these connections give rise to even rudimentary behaviors such as feeding and sex. What was missing were data relating the activity of neurons to specific behaviors.

The authors then went on to point out how superficial and deceptive many popular presentations of human brain experiments tend to be.

Regardless of future research ventures, though, there still appear to be accepted behavioral phenomena that stymie conceivable neural/molecular explanations. One such phenomenon is hyperthymesic syndrome in which experiencers display an ongoing massive day-by-day recall of their lives and also significant global news. Such memories were found to be "highly organized in that they are associated with a particular day and date" and that this occurs "naturally and without exertion" (McGaugh & LePort, 2014). Embedded within this stunning memory phenomenon (the article is entitled "Remembrance of All Things Past") seems to be the remarkable ability to map arbitrary dates to the corresponding day-of-the-week (termed calendar calculation). All in all, this phenomenon seems implausible for evolutionary dynamics, a genetic realization, and ultimately a neural embodiment (a point skirted in McGaugh and LePort's article).

A relevant backdrop to cognitive mysteries is the unfolding missing heritability problem (Christopher, 2020) in which extensive efforts to identify the genetic bases for clear differences in (human) behavioral tendencies have come up short (in a "beyond belief" finding). In parallel, efforts to identify the genetic origins of the differences in many disease susceptibilities have also largely failed (Christopher, 2020). As introduced in (Christopher, 2017a) the traditional reincarnation vision offers some traction for these heritability puzzles, as well as traction elsewhere including for the surprising diversity of personality found in the animal kingdom (Angier, 2010; Siebert, 2006). Earlier work also considered the potential import of a reincarnation-based phenomenon with regard to some evolutionary dynamics (Christopher 2022). And that evolutionary consideration also discussed some remaining problems for either the DNA, or reincarnation-based paradigms.

All together then this paper suggests some cognitive phenomena that challenge the materialist paradigm, along with some possible dualist, reincarnation-based, alternative explanations. In a final twist, though, it is suggested that the Flynn effect, in particular, may demand more than either the established materialist or the suggested dualist model can likely provide. Life's mysteries still appear to strongly challenge our understanding.

2. Variation in Intelligence

The particular topic of (human) intelligence is introduced here via consideration

of an earlier modified explanation for its variation (Mitchell, 2012/07). As of the fall of 2012 the DNA searches had tentatively identified about 1 percent of the expected underlying DNA/genetic basis. That such a prominent and variable feature could well be effectively de-coupled from a basis in DNA is amazing. What then would make someone a genius?

In a *New York Times* article a novel theory was described in which the DNA dynamic specifying intelligence was reversed. As proposed by the neurogeneticist of Trinity College Dublin, Kevin Mitchell, intelligence was a big evolutionary winner and thus high intelligence was standard equipment (Mitchell, 2012/07). The variations found in human intelligence were then proposed to come from the inevitable random mutations found in each of our genomes, with such mutations seen as much more likely to hurt, rather than help, smarts. Thus humans with high innate intelligence simply had minimal contamination of their intelligence blueprint, while the rest of us suffered significant corruption via mutations. More subtly, Mitchell proposed that the apparent inheritance of intelligence reflected an underlying heritability-related mutation rate. An individual born into a family with a relatively low rate of mutations present in their genomes, would tend to have a high IQ. Conversely, an individual born into a family which had a higher rate of mutations would then tend to have a lower IQ.

Mitchell's roughly decade old work still appears relevant since even the more recent and far-reaching (polygenic score) efforts, including much publicized small successes in intelligence-related topics such as educational attainment, were subsequently undermined in follow-up studies (Cepelewicz, 2019).

Mitchell's intelligence proposal raised questions, though. How could evolution have resulted in something akin to a genius' intelligence as standard equipment? If there are variations in group (average) intelligences then does this in turn reflect differences in their average mutation rates? Coincidently, eight days after the Dobbs article the *New York Times Magazine* contained a lengthy article by Andrew Solomon entitled "How Do You Raise a Prodigy?" (Solomon, 2012a). In it were descriptions of high intelligence kids who then consistent with Mitchell's proposal would have carried minimal dumbing mutations. Here then might be descriptions of kids operating close to the proposed default high intelligence state:

> Drew Petersen didn't speak until he was 3.5 years old, but his mother, Sue, never believed he was slow. When he was 18 months old, in 1994, she was reading to him and skipped a word, whereupon Drew reached over and pointed to the missing word on the page.

Drew then went onto apparently learn to read quite a bit of sheet music on his own and then skipped the first of six months of formal piano lessons at age 5. Later that year he was "performing Beethoven sonatas at the recital hall at Carnegie Hall". On the way to kindergarten at one point Drew asked his mom, "[c]an I just stay home so I can learn something"? Drew somehow appeared to be way ahead of schedule in his cognitive development. Additionally, Drew and

some of the other prodigies considered in Solomon's article exhibited enormous self-determinations. Thus one mom commented, "it's not for me to be proud; [she] who does this herself".

As conveyed in the prodigy article, such examples of high intelligence seem to be innate. Drew's parents did not appear to be standout intellectuals, also had a non-prodigy child, and sensibly seemed to avoid hyping the genius business. But again does such relatively high intelligence make sense as an evolutionary outcome? From an evolutionary standpoint is it even likely to be found in our evolutionary cognitive card (or gene) collection, let alone as standard equipment? A framework for contemplating the evolutionary forces that shaped our cognitive capacity was suggested in Steven Pinker's *How the Mind Works* (Pinker, 1997: pp. 186-190). In that framework humans seem to have historically found a niche in specializing on how to outsmart and often eat other species. Pinker thus suggested that life for our "ancestors [was like] a camping trip that never ends" (without modern equipment). Pinker appropriately laid out this concept within a chapter titled "Revenge of the Nerds".

A much simpler evolutionary dynamic was the apparent development of trichromatic vision within the primate heritage. This development involved rather simple changes in DNA which then could beget an additional color receptor which in turn could have been helpful for identifying ripe fruit (Jacobs & Nathan, 2009). But Pinker's suggested cognitive development—with natural selection weeding out DNA that was lousy for the demands of camping and also spreading some fortuitous genetic camping gems—appears more tentative. Would such a dynamic likely have made possible, let alone standardized, the kind of high intelligence found in prodigies? How natural selection could have produced a little kid capable of playing Beethoven sonatas, and being sufficiently self-motivated to do so, is quite the puzzle.

The remainder of this paper considers the aforementioned three intelligence-related mysteries—a childhood behavioral syndrome termed the Einstein syndrome; prodigious savants; and then the Flynn effect or the historical rise of IQ's. Individually each of these provides plenty of puzzlement, but in light of the lack of identified DNA origins for the variations in intelligence it is suggested herein that they represent a big hurdle for materialism. These descriptions will also be paired with possible reincarnation-framed (dualist) explanations. The material herein is in part an updated version of some material originally presented in a paper published in the medical online journal, Cureus.com in August 2013 (Christopher, 2013) and then followed up in a *A Hole in Science* (Christopher, 2017b). Additionally, some significant complications associated with the Flynn effect—as well as instinctive behaviors—will be discussed.

3. The Einstein Syndrome

Thomas Sowell's book, *The Einstein Syndrome—Bright Children Who Talk Late*, considered a behavioral phenomenon named for the late physicist Albert Einstein (Sowell, 2001). (Sowell is the well known author and economist). Sowell

pointed out that children with this condition have "speech development [which] lags far behind that of other children their age, while their intellectual development surges ahead of their peers" (Sowell, 2001: p. 1). These children often are very strong willed, late in toilet training, weak socially, and their intellectual strengths are focused in analytical areas and/or music. They also tend to possess exceptional memories. Simply put such kids appear to be born strongly nerd-inclined ("nerd" is not a slight). Another prominent characteristic is that they are almost always born into families with a considerable technical and/or musical presence.

The Einstein Syndrome considered children fitting this description whose parents had come together in two groups. One group represented the experiences of 43 biological families and was connected with Sowell, while the other group represented 232 biological families under the auspices of Professor Stephen Camarata, a speech pathologist at the Vanderbilt University Medical Center (Sowell, 2001: pp. 4-5). Due to the inclusion of a few families with multiple late-talkers, the respective counts of children were, 45 and 236. The median age of beginning to speak in Sowell's smaller group was four years old, while the figure for the children in Professor Camarata's group was three and a half (Sowell, 2001: p. 107). In the smaller group most kids "did not make a statement using more than one word until they were at least three and a half years old and their first complete sentence was spoken when they were four" (Sowell, 2001: pp. 17-18).

For comparison, the normal development of speech progresses from single word utterances and then at "around 18 months the child starts to combine single words into two word sentences" (Smith et al., 1998). Subsequently, their "[v]ocabulary typically grows from around 20 words at 18 months to around 200 words at 21 months" (Smith et al., 1998: p. 304). Furthermore, the large Stanford-based Terman study (1925-59) of gifted children (with IQ's of about 140 and higher) found they tended to talk earlier than their lower IQ peers (Smith et al., 1998: p. 472).

Sowell had previously written a book, *Late-Talking Children* (Sowell, 1998), on this subject and had a son who had exhibited this syndrome. Professor Camarata also had a son with this syndrome and he himself had demonstrated it too. Almost 90% of the children in these groups were boys (Sowell, 2001: pp. 9-10). Also noteworthy was that 26 percent of the children in Sowell's group had a close relative who had exhibited this syndrome, while the corresponding figure for Camarata's group was 48 percent (Sowell, 2001: p. 9).

A "striking" characteristic found with the Einstein syndrome was that the associated families "are highly atypical, and highly analytical" in their occupations (Sowell, 2001: p. 5). Of the late-talking children considered, almost three quarters "had at least one close relative who was either an engineer, a scientist, or a mathematician" (Sowell, 2001: p. 5). Close relatives in this context were limited to parents, grandparents, aunts, uncles, and additionally for Camarata's group, siblings. Children in the two study groups were about 10 times as likely to have

fathers who were engineers as were late-talking children in general that had been considered in a British study (Sowell, 2001: p. 7). It is perhaps noteworthy that this association with family type is similar to a weaker correlation observed between the occurrence of autism and inclusion in technical families (Baron-Cohen, 2012).

Also observed was a big music connection. In both groups about three-fourths of the kids had a close relative who played a musical instrument. In Camarata's group 28% of them had a close relative who was a professional musician and in Sowell's group that figure was 26% (Sowell, 2001: pp. 7-8). This appeared to be another focused activity correlated with the occurrence of this syndrome.

Some of the stories involving these children exhibiting the Einstein syndrome were striking. In one instance the three year old "silent" son of a professor was involved in the following:

> The older boy, now five, had learned to read and would entertain his doting parents by doing so aloud. One evening he came upon a word he did not recognize, and struggled with it. At which point his brother toddled over, peered at the text and read out the sentence perfectly. Following that, he again lapsed into silence for several months and only then began to speak easily (Sowell, 2001: p. 19).

In another case a toddler "became deeply absorbed in listening to Bach, to the point of being moved to tears" (Sowell, 2001: p. 85). Sowell also wrote that "one of the five-year-old pre-schoolers in my group helped both his mother at home and his teacher at school when they had problems using the computer (circa the 1990's). He could also play the piano with his eyes closed" (Sowell, 2001: p. 12). Extraordinary child lock breaking abilities were exhibited by Sowell's son prior to the age of one (Sowell, 2001: p. 41).

The previously described prodigy Drew Petersen appeared to fit this syndrome's profile in so far as in particular demonstrating the late-talking attribute and also in having an engineer father (Solomon, 2012a). In Drew's case, his parents seemed to wisely brace against the hype or pressure associated with prodigies. As Solomon pointed out, "[t]hey never expected the life into which Drew has led them, but they were neither intimidated by it nor brash in pursuing it; it remained both a diligence and an art" (Solomon, 2012a: p. 418). In a related contrast Solomon quoted Harvard professor of music, Robert Levin, on the lack of improvement associated with the contemporary trend of ambitious parents pushing their young piano-playing offspring into the terrain of demanding musical pieces (Solomon, 2012a: p. 417).

Continuing, Thomas Sowell also considered some earlier experiences of adults who apparently had had the syndrome (including Albert Einstein). One was the pianist Arthur Rubenstein who demonstrated a remarkable draw to the piano as a young child:

> [he] became fixated on the piano. Whenever he was asked to leave the drawing room where [it] was kept he screamed and wept. He began playing

> the piano at age three. When his father later brought him a violin to play, little Arthur reacted by smashing it, earning himself a spanking (Sowell, 2001: p. 39).

Sowell suggested that such strong-willed behavior would be "all too familiar" to the parents of Einstein syndrome kids. Furthermore Rubenstein:

> [a]fter hearing a performance of the first suite of Edvard Grieg's *Peer Gynt*, [he] returned home "to play almost all of it - to the amazement of the family". At this point Rubenstein was not yet five years old and had not yet begun formal instruction under a professional musician. At age seven, he gave his first public performance (Sowell, 2001: p. 40).

Another remarkable behavioral syndrome, Williams syndrome (roughly the opposite of the Einstein syndrome), was also touched on.

These amazing behaviors led Sowell to title an explanatory chapter, "Groping for Answers". Therein he carefully laid out some hypotheses about possible brain developmental dynamics which could have produced the specific patterns of the observed aptitudes. Beneath this he favored a DNA basis with some implicit support from the earlier occurrences of the syndrome amongst close relatives and also indirectly by the analytical-orientations of the families.

Within families with instances of the Einstein syndrome, though, most other siblings were normally developing (Sowell, 2001: p. 97 and epilogue). Additionally, of course, most high aptitude technical and/or musical people have not followed this pattern. Given the rarity of the syndrome a DNA explanation would seem likely to involve some form of mutation, but is it realistic for mutations to produce these behaviors? Is it really plausible for a bio-molecular code to specify for a particular obsession such as playing the piano?

One possible approach to this phenomenon utilizes dualism, and in particular reincarnation. From such a perspective a being who became highly focused in a previous technical and/or musically-oriented life was then reborn and brought along quite a bit of their focus and even some capabilities. This behavioral skew might also have been carried over and reflected somewhat in their brain and this combination could have contributed to the delayed speech. Additionally, one symptom associated with a person being very intellectually focused is that they also tend to be out of touch with their body and this could have been reflected in the delayed toilet training. The fact that such children were predominantly found in technical and/or musically-connected families could follow from the traditionally-believed tendency of an incarnating-being to be drawn to similar and/or previously-connected parents. From this perspective, one might think that something like this syndrome would be much less likely to be found within cultures that do not support analogous careers.

The above transcendental take on the Einstein syndrome portrays some basic elements of a potential reincarnation dynamic. That is that an incarnating soul tends to be drawn to local, similar, and/or previously-related parents. This dy-

namic could be consistent with the crude heredity patterns that underlie DNA's behavioral expectations (Christopher, 2017a). Additionally, although the *The Einstein Syndrome* did not report on measured brain characteristics, it is also possible that the children exhibiting this syndrome had correlated brain features. Likewise, there have been observations from brain imaging studies in which some features apparently connected to high intelligence stood out, yet the observed correlation between intelligence scores and DNA's specifics is negligible. This could be viewed as an example of a transcendental Lamarckian-like effect. With such a dynamic a very focused individual could then pass on some of their acquired characteristics to their next incarnation, as opposed to their offspring as was proposed with the original Lamarkian evolutionary dynamic. Such a reincarnation-based version of the Lamarckian dynamic might also involve the production of some supporting mutations, somewhat analogous to the import that was suggested for the zygotic split leading to monozygotic twins (Christopher, 2017a).

Finally on a potentially related note, bright children are much more likely to experience myopia (Sowell, 2001: p. 90) and among autistic or retarded musical prodigies "a majority… have been either congenitally blind or severely visually impaired" (Sowell, 2001: p. 102). Sowell had used these points in part as supportive of a heredity-based explanation for the Einstein syndrome. From a transcendental perspective such impairments could be viewed as symptomatic of rebirths that were extremely focused on music and thus involved corresponding losses of neglected capacities.

4. Savants

The second challenge considered here involves the behavior of savants as depicted in Darold A. Treffert's fine book, *Islands of Genius* (Treffert, 2010). In addition to traditional autistic savants this book also considered the recently recognized acquired savant syndrome in which savant behavior appears in the wake of a central nervous system setback. Although not considered herein, Treffert's book also considered sudden savant syndrome in which savant skills seem to appear spontaneously. Treffert's preface provided the following introduction:

> Kim Peek, the inspiration for the movie Rain Man, memorized 12,000 books. He is the Mt. Everest of memory with bottomless factual recall in multiple areas of expertise including history, geography, literature, music, sports, science and religion, to name only some. He became a living Google. But as a child, his parents were advised to put him in an institution. One doctor suggested a lobotomy.
>
> Matt Savage, who couldn't stand noise or being touched as a child, very quickly mastered the piano at age 6 1/2 and had his first CD of jazz composition at age eight. Matt is recognized worldwide now as "the Mozart of Jazz," a title conferred on him by the famous jazz artist Dave Brubeck. At age 17 he is the leader of the Matt Savage Trio, giving concerts around the

> globe. He recently recorded his eighth CD.
>
> Leslie Lemke is blind, severely cognitively impaired and has cerebral palsy. Yet he played Tchaikovsky's Piano Concerto No. 1 flawlessly after hearing it for the first time at age 14. Leslie, who has never had a music lesson in his life, is a musical genius.
>
> After a 15-minute helicopter ride over London, Stephen Wiltshire, in a five-day drawing marathon, produced a spectacularly accurate four meter long sketch which captures with mind-boggling fidelity seven square miles of London - building by building, street by street, window by window. Diagnosed with autism at age three, he was described as a "rocket of young talent" on the scene at age eight. Stephen was invested by Queen Elizabeth II as a Member of the Order of the British Empire and now has his own gallery in the Royal Opera Arcade in London.
>
> These extraordinary people, and others like them… have savant syndrome, a rare but remarkable condition in which incredible abilities—"islands of genius"—coexist side by side, in jarring juxtaposition, to certain disabilities within the same person (Treffert, 2010: pp. 13-14).

Further in his preface Treffert again suggested that:

> no model of brain function, including memory, will be complete until it can fully incorporate and explain this jarring contradiction of extraordinary ability and sometimes permeating disability in the same person. Until we can fully explain the savant, we cannot fully explain ourselves nor comprehend our full capacities (Treffert, 2010: p. 14).

For Treffert there appeared to be no doubt that these remarkable behaviors arose solely from physical brain processes. The central mystery for him was the origins of those savant-functioning capabilities. His explanation involved what he called "genetic memory" and in particular that savants have somehow tapped into our shared DNA-based storage of knowledge and skills and then implemented them within the brain's hardware. He thus offered an analogy of factory-installed software on a computer. His specific storage vehicle was the epigenome, the conditioned side-kick of the genome (via molecules effecting the enfoldment of the genome's packaging or chromatin).

I pause here to note that the epigenome, though, appears to have very limited potential for contributing to inheritance (its modification does, though, appear critical to the specialization of cells in the body). This is due in part to the nature of the formation of gametes in which "the DNA that goes into the eggs and sperm are stripped clean of epigenetic marks [or molecules], resulting in the fertilized egg being the epigenetic equivalent of a blank slate" (Watson, 2003: p. 384). Furthermore, even epigenetic researchers appear modest in their suggested contributions. As the researcher Eric Nestler pointed out it is expected "that an individual's genes play the dominant [heredity] role in determining physiology and function" (Nestler, 2011) and moreover that any epigenetic inheritance effect is "controversial" (Mirsky, 2011 podcast).

Continuing with savants, about half of the savant syndrome cases occurred concurrently with an autistic disorder and in the rest the underlying disorder was a brain injury or disease. Of particular interest were the prodigious savants whom Treffert believed would have been characterized as geniuses or prodigies if they didn't have the coexisting disability. In this regard there is perhaps a little overlap with Einstein syndrome.

Some distinguishing characteristics of prodigious savants include extraordinary memories and also exceptional but narrowly focused skills. These savants are believed to be very rare with "probably fewer than 100 known prodigious savants living worldwide" (Treffert, 2010: p. 25). Treffert described five areas that the skills of savants appear to focus on calendar calculating (finding the day of the week for a specified date), music, art, mathematical and number skills (including super-fast calculations), and mechanical or spatial skills (Treffert, 2010: pp. 19-22). The calendar calculating skill was previously mentioned along with hyperthymesic syndrome.

Treffert detailed some of the brain changes that could be associated with savant syndrome (Treffert, 2010: pp. 48-54). These seem to involve some damage to the left hemisphere and then subsequent compensatory changes and efforts on the part of the brain's right hemisphere. Here is his description:

> disruption of typical left hemisphere function from prenatal influences - such as detrimental hormonal effects on the cortex from circulating testosterone - or other injurious prenatal, perinatal or postnatal development in children and adolescents, or from later brain injury or disease in adults. These injuries produce compensatory right brain skills and abilities to offset left brain dominance. In addition there is, simultaneously, probably from those same detrimental factors, injury to the cortico-limbic (cognitive or semantic memory) circuits with substitution and reliance on (habit or procedural) memory circuits. This combination of left brain and cortico-limbic circuitry damage, with compensatory right brain skills and reliance on habit and procedural memory, produces the clinical picture that is savant syndrome.

That there are corresponding changes in the brain is perhaps only part of the functional story. For example was the memory exhibited by Stephen Wiltshire after his 15 minute helicopter ride or Kim Peek's book recall really brain-only feasible? In the *Blank Slate* Steven Pinker pointed out the intuitive when he wrote that "learning *is* a change in some part of the brain" (Pinker, 2002: p. 45). You can sense this when you try to memorize a phone number or more subtly as you acquire a new habit. But can the brain's functionality really provide the extremely rapid changes implied by the recalls demonstrated by individuals like Peek and Wiltshire?

Another striking memory feat presented by Treffert came from Oliver Sacks' book, *An Anthropologist on Mars*. It involved a man named Franco Magnani who experienced a serious but unknown illness which had effects including "de-

lirium" and "perhaps seizures" (Treffert, 2010: pp. 198-199). After recovering "Magnani began painting immaculately accurate scenes from the village of Pontito [Italy] where he had grown up, but had left at age 18." In addition to the "digital-fidelity recall" the painting skills and interest appeared to come out of the blue. Magnani was quoted, "Fantastic. How could I do it? And how could I have had the gift and not known about it before?". Other examples of "massive autobiographical memory", perhaps akin to hyperthymesic syndrome, were also given. Again is such memory and also apparent acquisition of painting skills really neurally feasible?

Back to Darold Treffert's *Islands of Genius* where substantial efforts involved trying to account for the mysterious savant learning. The examples given in the book appeared to support his contention that "they indeed know things [and exhibit skills] that they never learned" (Treffert, 2010: p. 59). In a 2014 *Scientific American* article Treffert stated that "[b]y 2010 I had assembled a worldwide registry of 319 known savants, of whom only 32 had the acquired form" (Treffert, 2014). In that article he concluded that "[a]cquired savantism provides strong evidence that a deep well of brain potential resides within us all". In his *Islands of Genius* book he wrote that he again believes that the epigenome (in particular as optimistically portrayed in the *NOVA* TV episode, "Ghost in Your Genes") is the vehicle for such transmission and claimed simply "[b]ottom line: genetic memory exists" (Treffert, 2010: pp. 60-61). There do not appear to be genetics reports suggesting support for anything like this capability, though.

Before considering a possible reincarnation-based take on some of the savant phenomena some comments on my background source, *The Tibetan Book of the Dead* (TBD), are in order (Fremantle & Trungpa, 1992). This book was apparently written in the 8th century by a Buddhist religious teacher named Padmasambhava and it contains instructions to aid a dying or recently deceased person in dealing with the presumed subsequent (post-death) intermediate or bardo state. As discussed in some of my other works the book could shed light on possible rebirth dynamics (Christopher, 2017a; Christopher, 2017b). This text was thus often read at the bedsides of the dying or recently deceased. The intermediate state was believed to be tumultuous but it also offered the potential to obtain a good rebirth. The coauthor and late Tibetan teacher Chogyam Trungpa offered a modern synopsis in his commentary:

> there is something which continues, there is the continuity of your positive relationship with your friends and the [religious or spiritual] teaching, so work on that basic continuity, which has nothing to do with the ego. When you die you will have all sorts of traumatic experiences, of leaving the body, as well as your old memories coming back to you as hallucinations. Whatever the visions and hallucinations may be, just relate to what is happening rather than trying to run away. Keep there, just relate with that (Fremantle & Trungpa, 1992: p. 40).

Thus the post-death state was apparently believed to represent a significant

opportunity to learn some lessons. Trungpa's commentary also emphasized an interpretation of underlying energies experienced in the bardos. Another Tibetan teacher, Tulku Thondup, characterized the bardo experience as "like a dream journey, fabricated by our own habitual mental impressions" (Thondup, 2005: p. 10). Much of the TBD involves a number of explicit suggestions to help the deceased realize their own ultimate nature (perhaps the soul), and as a simpler pragmatic alternative to avoid a bad rebirth. Within such a perspective it is appears that the TBD was written for those with Tibetan Buddhist-flavored "habitual mental impressions". The intentionality of the soul within the bardo is viewed as critical and thus the repeated instructions to maintain an altruistic attitude dedicated to the betterment of "all sentient beings".

It is the associated description of the post-death or bardo soul that is of particular interest here. It is stated several times that "in the bardo state the mind becomes nine times more clear" and also that the associated memory is such that even if the TBD was "heard… only once and the meaning not understood" then after death "it will be remembered with not even a single word forgotten" (Fremantle & Trungpa: pp. 167-168). This claimed clarity and memory capability, though, might then compete during the bardo experience with the suggested "visions and hallucinations".

A crude transcendental or reincarnation-based explanation of savant syndrome might then begin with simple continuity and thus the inexplicable learning and interests were carried over from a past life. More particularly, if a person had been strongly interested and habituated to an activity such as music then that tendency might continue in the intermediate state and ultimately result in a rebirth with a very focused trajectory. In a physics-sense, their strong commitment (or intentionality) somehow caught a resonance and this carried over strongly into their next life. Perhaps such a process could allow for some of the underlying "nine times more clear" soul-mind to shine through in a focused fashion and thus produce some of the spectacular savant feats (including those involving memory). The acquired savant syndrome could reflect neural setbacks that inadvertently opened a window for the functioning of what might be termed, the underlying soul-mind.

Finally, an additional very specific bardo description and possible savant connection comes from Tulku Thondup's book, *Peaceful Death, Joyful Rebirth.* In it he wrote that (Thondup, 2005: p. 88):

> [s]ome people relive their dying experiences, exactly as they went through them, on every seventh day after their death, again and again, especially if it was a tragic death. That is why every seventh day is observed by survivors with prayers and dedications.

Facing such a scenario would likely whittle down your perspective on things and strongly frame time in a cycle-of-7 (or modulo 7) days perspective. With savant syndrome the most common—"almost universally, present"—unusual ability and focus is with calendar calculating. This phenomenon is also present amongst

hyperthymesic individuals and such people also "scored higher on a test of obsessive personality traits". Why and how this calendar calculating happens is an enormous mystery. Central to it appears to be a fixation on time in a day-of-the-week or modulo 7 sense.

5. The Flynn Effect

The third and final cognitive mystery considered here is the Flynn effect. Philosopher James Flynn (and some less noted earlier researchers) noticed that IQ scores in many countries appeared to be rising during the twentieth century (Pinker, 2011; Folger, 2012). Although there is no shortage of controversy here, the apparent rise in IQ's is not in question. The "bombshell" as Steven Pinker put it "is that the Flynn Effect is almost certainly environmental" (Pinker, 2011: p. 653). How such an environmental dynamic could have evaded previous studies, as well as everyday perception, is amazing.

The apparent intelligence gains are substantial:

> [a]n average teenager today, if he or she could time-travel back to 1950, would have an IQ of 118. If the teenager went back to 1910, he or she would have had an IQ of 130, besting 98 percent of his or her contemporaries. Yes, you [read] that right: if we take the Flynn Effect at face value, a typical person today is smarter than 98 percent of the people in the good old days of 1910. To state it in an even more jarring way, a typical person of 1910, if time-transported forward to the present, would have a mean IQ of 70, which is at the border of mental retardation. With the Raven's Progressive Matrices, a test that is sometimes considered the purest measure of general intelligence, the rise is even steeper. An ordinary person of 1910 would have an IQ of 50 today, which is smack in the middle of mentally retarded territory, between "moderate" and "mild" retardation (Pinker, 2011: p. 651).

The underlying gains have been largely in the abstract reasoning portions of intelligence tests such as those containing similarities, analogies, and visual patterns (including Raven's Matrices). Little if any gains have occurred in the traditional main topics of education - knowledge, math, and vocabulary (Folger, 2012; Pinker, 2011: p. 651). Thus arguments connecting these gains to improvements in schooling appear to be inadequate.

Flynn feels that these IQ scores increases reflect a pervasive shift in modern societies towards more abstract reasoning (Flynn, 2012; Pinker, 2011: pp. 653-654; Folger, 2012). In particular, Flynn hypothesized that this shift involved "scientific reasoning" infiltrating "everyday thinking" on an increasing scale (Flynn, 2012; Pinker, 2011: p. 655). Steven Pinker offered an explanation, albeit an optimistic one, that many modern people have "assimilated hundreds of these [scientific] abstractions from casual reading, conversation, and exposure to the media, including *proportional*, *percentage*, *correlation*, *causation*, *control group*, *placebo*, *representative sample*, *false positive*, *empirical*, *post hoc*, *statistical*, *median*, *variability*, *circular argument*, *tradeoff*, *and cost-benefit analysis*" (Pinker, 2011: p.

655). With such a hypothesized shift towards abstraction, Flynn suggested that "we developed new cognitive skills and the kind of brain that can deal with them" (Flynn, 2012).

The mystery associated with the Flynn effect is how this could have happened given the relatively fixed nature of an individual's intelligence quotient. As intelligence researcher Linda Gottfredson put it, "decades of genetics research have shown,… [that] genetic [or innate] endowments are responsible for much of the variation in mental ability among individuals" (Gottfredson, 1999). Additionally, Gottfredson pointed out that:

> [A]lthough shared environments do have a modest influence on IQ in childhood, their effects dissipate by adolescence. The IQs of adopted children, for example, lose all resemblance to those of their adoptive family members and become more like those of the biological parents they have never known.

Certainly some adoptions, perhaps particularly international ones, would seem to have realized in an environmental-sense something akin to Pinker's hypothesized time-travel. So why hasn't the Flynn effect been apparent via some of adoption dynamics?

Additionally, the real-world limited import of these apparent aptitude gains was vividly suggested by Linda Gottfredson's in citing of the complexity barriers encountered in a 1993 literacy survey of American adults (Gottfredson, 2012). Included was the observation that only 17 percent were able to use "a bus schedule to determine the appropriate bus for a given set of conditions" and only 3 percent were able to "answer the most complex questions, like determining the total cost of carpet to cover a room (using a calculator)".

Nonetheless, the very puzzling increases in our aptitudes for abstract reasoning beg an explanation. From a reincarnation perspective this might be explained as a Lamarckian-like effect due to the increased emphasis on abstract reasoning in the modernizing world. From this perspective there has been a boost in innate abstract reasoning abilities as souls have cycled thru (human) lives with an increasing emphasis on abstraction. This would be similar to the earlier proposed explanations for the gains found with the Einstein syndrome and savants, but without the large focal boosts. This could also be consistent with the innate intelligence differences found between individuals (and also possibly in group averages), differences which thus far have minimal association with DNA. Thus, perhaps in general the differences in the intellectual demands, possibilities, and pursuits across transcendental (or sequential life) trajectories could have produced different cumulative Lamarckian-like contributions to individuals' IQs.

If Gottfredson's complexity example is representative, though, the hypothesized transcendental boost in aptitudes has not been matched by a critical motivational boost to learn and utilize. Our slide into increased distraction might be a countervailing influence.

In any case, such a reincarnation-based process would place the environmen-

tal influence for contemporary intelligence score gains in the previous (human) lives of individuals. The alternative of trying to account for contemporary gains amidst modern society's increasingly distracted norms and reduced physical activity seems quite difficult. In fact Flynn commented, "[t]o my amazement, in the 21st century the increases are continuing" and went on to add, "as if guided by an invisible hand" (Folger, 2012).

I add some personal perspective here. When I became aware of this phenomenon I had difficulty believing the environmental explanations. While growing in the 1960's and 70's I sensed that my parents' up-bring in the 30's and 40's was more conducive to learning than my own. My siblings (2 brothers) and I did not appear smarter (or more educated) than our parents, and I sensed that there perhaps had been an underlying TV-tax at work. More generally what might be termed a distraction-tax appears to have grown considerably since my upbringing. My sense was also that if the Flynn effect reflected a transcendental dynamic then eventually it would end. If much of humanity had cycled through previous human lives, and those lives have been hit with increasing distraction-taxes, then humanity should not see continued innate intelligence boosts. In fact in Pinker's *Enlightenment Now* it is pointed out that the "Flynn effect is now petering out in some of the countries in which it has been going on the longest" (Pinker, 2018: p. 241).

6. Complications

DNA/genetic origins seem unlikely for the individual mysteries considered herein. Even if genetic searches were succeeding in general areas like intelligence, the extraordinary capacities, and in some cases specific drives, associated with the Einstein syndrome or prodigious savants would seem to represent large hurdles. An alternative dualistic reincarnation-based approach in which carryover from earlier lives appears to offer some traction.

A group or general phenomena like the Flynn effect seems to offer significant complications for both approaches, though. A genetic explanation appears infeasible while an environmental (nurture) source, as Pinker acknowledged, seems to represent a "bombshell". Do modern trends really seem to be bolstering our abstract reasoning abilities (along with simply learning)?

A further look at general phenomena raises more questions. In earlier works I considered some remarkable, presumed to be evolved, capacities (Christopher, 2022). For example, some birds have been shown to demonstrate an innate knowledge of migration routes, a point which astonished even Nobel laureate James D. Watson (Watson, 2003). Additionally, a number of animals, including dung beetles, appear to utilize the positions of nighttime stars in order to navigate (Sokol, 2021). From a scientific perspective does it really appear possible that a molecule, deoxyribonucleic acid (DNA), could have been shaped by natural selection to encode for the making of a brain so precisely enhanced for navigation? Thus some evolutionary instinctive dynamics really appear to strain conceivable genetic explanations (Christopher, 2022).

In the previous section a reincarnation-based possible explanation for the Flynn effect was introduced. Some embedded complications therein, though, will now be considered. Group phenomena like the Flynn effect, as well as some behavioral instincts, appear plausible from a transcendental perspective only if certain conditions are met. One, it would seem is that you have to have a closed population of souls moving through the species' history. In the case of bird migrations that would seem to imply the cycling of a subset of souls through those birds' lives and in doing so picking up (or learning) the likely dynamic migratory route. Instead of a genetic basis the idea here is of an experiential basis for such instinctive knowledge. A related and intuitive example might be with regards to a reincarnation basis for surprising childhood phobias (Stevenson, 1997; 2000). Broadly, though, how in general would a soul pickup new instincts if it changed species? Also, with the Flynn effect an experiential dynamic would seem likely to entail a large population of souls regularly showing up as humans, and somehow tracking the growth in our population. This would be both a tricky and limiting constraint for reincarnation explanations.

An additional relevant dynamic for reincarnation models appears to be the relationship between a soul and an organism. If it is in general, one-to-one, then that would imply that there are many souls locked up in smaller lifeforms. This for example might be consistent with the Buddhist tumultuous take on rebirth, in which to be born a human is thus viewed as a very rare and "precious opportunity" (and Buddhism posits other rebirth realms too). A one-to-one relationship might also be consistent with widespread occurrence of sophisticated personalities among various species (Angier, 2010). For more details a sober introductory Buddhist take can be found here (Dhargyey, 2003: p. 32). A more optimistic take from medium reports seems to imply that among smaller lifeforms (and plants are even sometimes mentioned) a single soul has a distributed presence across a number of organisms. The optimism in that medium-based vision is also reflected in that regression to simpler species doesn't seem to be mentioned. With either view, though, it doesn't seem likely a group of souls would get locked (or derailed) into a single species and thus provide a longterm experiential basis for the development and maintenance of instincts (or a group phenomenon like the Flynn effect).

A third alternative here is that generic species instincts (or phenomenon the Flynn effect) are somehow maintained separate from either a materialist, Nature (DNA) plus Nurture, basis or the experiences of resident reincarnating souls. Puzzling instincts are not uncommon and perhaps that is why people like Rupert Sheldrake have hypothesized that there is some kind of learning (or morphic) fields which facilitates the maintenance and passage of such instincts (Sheldrake, 2012). Associated with a given species would then somehow be a collection of previously learned behaviors which from either a materialist perspective or a reincarnation perspective could then be tapped into. An interesting relevant example here could be the specific behavioral tendencies exhibited by different breeds of dogs. Somehow different behaviors would then be stored in morphic

fields and appropriately realized for individual organisms according to their species.

As a final note on possible complications I add a bit more on those associated with the DNA paradigm. There are reasons to believe that the historical natural selection dynamics modified DNA in a haphazard way. This is apparent in the enormous variability in the size of genomes amongst different organisms (Herron & Freeman, 2014: pp. 582-591). For example, a broad-footed salamander and an onion have genomes fifty and five times larger than our own, respectively. Estimate of the functional portion of our own genomes is quite low—8 percent in one case (Zimmer, 2015). Also there seems to be considerable ambiguity in the workings of DNA as can be inferred by the health and behavioral divergence of monozygotic twins, and also in the variability of symptoms expressed by bearers of some disease-specific alleles. That variability is sometimes termed penetrance or variable expressivity. Additionally, recall Mitchell's aforementioned mutation-based IQ theory. These three phenomena—DNA's haphazardness, ambiguity, and susceptibility to mutations, appear to be at odds with the kind of genetic precision required for a number of behavioral instincts.

7. Conclusion

A feature of any person is their intelligence. This is thus a significant item on the agenda of behavioral genetics. In a gross sense, intelligence of course represents a standout feature of our species. In some cases, an individual's intelligence really stands out, somewhat analogous to extremes in height. The basis of the variations in this feature was supposed to be largely found in DNA. The inability to identify that DNA basis is a good example of the missing heritability problem. Given the importance of the development of intelligence in our evolutionary history as evidenced by our much increased brain size, scientists certainly expected to find a number of DNA segments contributing to our intelligence dynamic.

Does an alternative explanation involving a default high level of intelligence with the variations being imposed in a downward fashion via random mutations seem reasonable? A look into some high intelligence terrains challenges that idea (as well as conventional visions). Even without the particular conundrum of apparent inexplicable learning, it is difficult to see how our history could have resulted in such high level blueprints. At the very least, these questions associated with intellectual abilities should receive more recognition.

As discussed in this paper, there are really some very peculiar intellectual phenomena. These include an apparent effortless and dated ability to chronicle one's own life, as well as some children showing up in an adult-like focused fashion. Perhaps there are other outsiders who like Thomas Sowell have investigated such phenomena.

As suggested herein (and elsewhere [Christopher, 2017a]) reincarnation can offer some insight into these mysteries. Perhaps mysteries such as these even contributed to traditional ideas about a possible reincarnation phenomenon. It is

also noteworthy that this genetic deficit along with possible alternatives such as reincarnation and/or morphic fields, could be consistent with the intuition offered by the (Nobel laureate) physicist Eugene Wigner with regards to a possible conflict or contradiction at the intersection of the "laws of heredity and of physics" (Wigner, 1960).

Additionally, there are also some remarkable group behaviors, including the Flynn effect. Whereas a transcendental approach offers quite a bit of traction starting with the missing heritability problem and also some evolutionary dynamics (Christopher, 2022), it seems hard pressed to model some innate group behavioral patterns. If somehow those group instincts were encoded in DNA then a reincarnating soul could access these, like other DNA-realized features of an organism. But a DNA realization of instincts seems unlikely. Perhaps something akin to morphic or information fields could be involved.

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The author declares no conflicts of interest.

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