



reading of these books was viewed with suspicion by students and teachers alike, and they were occasionally confiscated, more often by students than by teachers.

## The Things They Carried

One of the books was the sheet music book for Rush's album *Hemispheres*. The cover featured a nude man, his backside visible, standing in a dramatically shadowed pose on the surface of a giant brain, gesturing at another man in a bowler hat, dapper suit with tie, and cane. This was just altogether too gay for my manly fellow male students to tolerate, and so they knocked it out of my hands during a crowded inter-class rush, it was kicked down the hall, and I never saw it again. I don't even know whose hands grabbed it — was it a Mike whose name and face I can barely remember? But it was many feet that kicked it down the hall.

I'd try to claw that book back from thirty years of entropy, but it's not in print; it was scarce even then, and I was not able to find another copy. If you have a copy, I'd love to have it again. I look for it once in a while, but it is hard to search on a sheet music book that has the same name as an album. I eventually found the sheet music for the songs on *Hemispheres* again, years and decades later, in the various Rush Complete anthologies, but having the book torn from me was a moment that sticks in my mind.

Was I carrying it around to be provocative, knowing the likely reaction? I remember mostly wanting to keep my head down, while still wanting to be able to follow my own interests, but I guess it's possible. I probably should have covered the cover. But I always was an idealist and hoped that, well, my fellow students would just be *cooler* than that about an artistically naked rear end. The cover was high-concept, about the two halves of the brain, and the two halves of human nature, as described by Rush — the Apollonian, and Dionysian, one buttoned-down, the other unfettered, but you try explaining that to 16-year-old high school boys.

## Allegorically Speaking

In the lyrics, which might be more accurately called the libretto of the so-very-definitely-mid-1970s rock-operetta that comprises side one of *Hemispheres* in vinyl album form, human society veers wildly between the failure of an intellect-driven society, which has lost track of the passion that gave life meaning:

*But one day the streets fell silent  
Yet they knew not what was wrong  
The urge to build these fine things  
Seemed not to be so strong*

and the collapse of the carefree spontaneous life of the vine, without a care for planning:

*But the winter fell upon them  
And it caught them unprepared*

*Bringing wolves and cold starvation  
And the hearts of men despaired*

They are finally rescued by a new God, the disembodied spirit of the explorer who took the ultimate swan dive through the black hole in Cygnus X-1, at the end of the previous album, *A Farewell to Kings*. Apollo and Dionysus decide to call him Cygnus, the God of balance, and the story ends with the hope of a new world

*With the heart and mind united  
In a single perfect sphere*

Pretty words, but not a sentiment you'd expect to gain a lot of sympathy among the jocks and burnouts of a rural high school in Pennsylvania. Yet I continued to try to circle my square and unite my yin and yang, believing that both my mind and spirit were perfectible, in the science-fictional universe where I lived.

### **Ten Thousand Hours**

I was an aspiring guitarist, and from my step-brother, had acquired a 1969 Fender Mustang in Competition Red with racing stripes and matching headstock. That guitar is sadly gone as well. It was a guitar made for plugging into gentle tweed-covered amplifiers and playing twangy surf music with reverb, not for playing squealing heavy metal in front of a wall of Marshall Stacks, and so I hated it for what it was not and did not give it enough credit for what it was, which was a beautifully made American guitar with a short scale that fit my small hands perfectly.

In the evenings, while my family watched reruns of *Mash* and *Diff'rent Strokes* and *Webster* and *Gimme a Break* and later *Hill Street Blues* and *Saint Elsewhere*, I sat on the floor in our living room and played my scales and chords, the guitar unplugged, over and over, driving my brother mad with the quiet, un-amplified twanging, my fingers doing the work while my mind wandered. And so my fingers got some of the thousand hours that Malcolm Gladwell claims are required to make one a master of any field, but my mind lagged. My progress was very uneven, with irregular years off, although a few years ago I resolved to finish putting in those hours. My concentration is better, my hemispheres more unified, and I made rapid progress, and so can play quite passably well today.

Anyway, I was carrying *Hemispheres* to school because I was studying Alex Lifeson's interesting guitar chord voicings. In the memorable opening section, the band comes in on a big chord, in an irregular rhythmic figure in one of their extremely nerdy "math rock" time signatures, 12/8.

### **Guitar Hero**

The chord is F#7(add B), a chord that would be called, by jazz players an "add 11" chord. The song is in the key of E major, a very common key for hard rock, but this is not made very clear by the opening chord. The scale notes in the key

of E major run E, F#, G#, A, B, C#, D#, and the basic chords in E major use notes drawn from that scale. The notes in the key of F# major are F#, G#, A#, B, C#, D#, E#. Don't get me started on why E# is not called F in this context — it just isn't. In modern music, they have the same pitch, but it is a matter of nomenclature. Anyway, the voiced notes of the “Hemispheres chord,” from low string to high, are F#, C#, F#, A#, B, and E.

Playing guitar chords is not like playing piano chords — on a piano, you can play any combination of notes that you can reach with your fingers. On a guitar, you can only play one note per string, which means that to find a fingering you can actually play with your hands, you are almost always playing the chords in rearranged form, playing “inversions,” often stretched across an extra octave or two, and often dropping one or two notes that are not critical to the chord's audible *character*.

In this chord there's a major triad of a first, a third, and a fifth, the F#, A#, and C#, although they appear out of order and spread across a second octave. This triad might suggest the key is F#. There is the flattened seventh (E) on top, making it a dominant seventh chord, which made it sound jazzy. But despite that E, it isn't a chord that would normally be used in the key of E major — you'd expect F#m7 instead, since the A# note isn't one of the notes of the regular E major scale in E major, A# is an augmented fourth or diminished fifth, also known as the *tritone*, the *diabolus in musica*.

But the chord is not just implying a tritone against the root note of the key of the song; dominant seventh chords *contain* a tritone interval. In this case, it's the interval between the third, A#, and the minor seventh, E — six half-steps.

And stuck in there is also the B, a perfect fifth of the key of E major, or a perfect fourth in the immediate context of the chord at hand — really an octave and a fourth, known as an “extended voicing,” an eleventh — giving this chord both the nervous tritone and the fourth, which gives the chord a “floating,” suspended character (major chords altered to use a fourth instead of a third are known as “suspended 4th” chords). So when we hear this chord, we are suspended nervously in space, and one chord can contain the seeds of both a piece of music and a lesson on the entire history of harmony in Western music.

### **The Uncertainty Principle**

You may not understand this, but your ear does. It's a hesitant chord — it hasn't defined the key very solidly, yet, or whether we are major or minor, jubilant or depressed, and it doesn't obviously point out whether it wants to go forwards or backwards, up or down. Is it Apollonian, or Dionysian? Or rather, balanced in between, but not balanced securely, but anxiously looking one way or the other?

On the recording, the music swirls in like a spigot has been opened and the chord kicks in, on that irregular beat, again and again, indecisive — then shifts upward to a more definitively upbeat A(add b) and some more conventional,

but still jazzy, major sevenths and mannered, precise jamming. This section is called a prelude but actually functions as an overture, introducing most of the musical ideas that will be used in the whole concept album side.

These chords made Hemispheres initially baffling, but intriguing, to my untrained musical ear. I was trying to train my ear to pick out the notes of chords so that I could listen to a piece and play it myself, without written music, as so many guitarists do. I was making progress on that, and in understanding the mysterious ways of chords, when the book was taken. I had other books, and I did not stop playing guitar altogether, but at least for a time, this particular line of inquiry was lost to me and I grieved to lose it.

Sometimes it seems to me that my memories are almost all about loss, and never about gain. In fact one could make a convincing argument that this series is all about me coming to terms with a long series of losses. I have to remind myself that there have been gains, in fact lots of gains, gains without number, gifts and findings and happy accidents, but as the child of a depressive and grandchild of a depressive and great-grandchild of a depressive, it is the losses that I mostly remember and that I feel moved to somehow restore. All I knew then was that listening to music and playing music soothed me, brought me out of my loops of anxious, persecuted thoughts and into my fingers and into the sounds, which I preferred to play as loudly as possible.

## **The Other Hemisphere**

### **Dueling Microprocessors**

One of the other books I remember carrying to school was Rodney Zaks' tome *How to Program the Z-80*. If music represented my Dionysian side, however nerdy and analytical my approach to it, the Apollonian side was computer programming. I still had my Radio Shack TRS-80 Model 1, and had mastered BASIC, and a little Pascal, and was learning the low-level programming that these programming languages were built on, assembly language, and the machine instructions they translated to, where the abstract layers of the computer met the transistors. In school we had Apple IIs, and I learned a bit from them, but since the computer teacher had nothing to teach me the school computers were mostly reserved for play, and my own at home for serious study.

With me was another geek boy named Paul Betts, a sort of frenemy of mine, who was not headed down the academic track, but the vocational, despite his obvious brains. We dueled on Rubik's Cubes (my best time to solve a scrambled cube was, I think, fifty-two seconds), and we dueled on sign-up sheets. I don't remember what we were signing up for, but I remember signing up, a number of times. I'd sign up first, and he'd come to sign up and instead of writing his name he'd carefully adjust my name, adding a loop to the P in Potts and a line to the o and transform me into him, and I'd have to remember to come back later to see if he'd done that, and if so add my name to the end of the list, if the slots weren't all filled.

Other Paul was, if I recall correctly, an Intel 8080 guy. We argued about register size and instruction length and orthogonality of instruction sets and mnemonics, as all sixteen-year-old boys do. As everyone knows, the 8088 was the chip selected for the original IBM PC. I moved on to college, where I came to realize that the Z-80, despite being the processor in Pac-Man and countless other video games, was now considered a bit sad and ugly. I fell in love with the much prettier and more symmetrical Motorola 68000 instruction set architecture, in the original Macintosh, and especially its interrupt architecture and TRAP instructions, as did so many other teenage boys.

And of course this led, years later, to an infatuation with the PowerPC. But in the end we were both fooled, as the world is now x86-64, whatever the underlying micro-architecture and process size, and these loves of our youth are mostly in landfills and piled in the backs of thrift shops. Although, occasionally, on Mars — the Curiosity rover that just landed on Mars sports a radiation-hardened PowerPC G3 chip, running several million lines of C code, and it is a beautiful piece of living history, for those who indulge in nostalgia for transistors, dies, and instruction set architectures.

### **Somewhere in Time**

Sometime around the same year, around the time that Other Paul was reading *Mutant 59: The Plastic Eaters*, by Kit Pedler and Gerry Davis, a sort of low-budget version of Michael Crichton's *The Andromeda Strain*, and around the time I was reading Thomas J. Ryan's *The Adolescence of P-1*, about an artificial intelligence, I came across a copy of John Varley's novel *Titan*, and the geometry and topography of my inner world changed forever.

### **The Siren Song of Titan**

I was enthralled. *Titan* eventually led me to the next book, *Wizard*, and eventually to the next book, *Demon*, and unlike so many modern series that never end, continued even by the descendants and authorized ghostwriters of the author, Varley wisely wrapped things up while the Gaea trilogy was still great, and hasn't ruined it with any sequels or prequels.

I've read one or two more Varley novels since and they are imaginative, but I have not found his other work nearly as fascinating as the Gaea trilogy. Except, of course for a novella that appeared in *Isaac Asimov's Science Fiction Magazine* called "Press Enter," where a guy loses control of his computers and gets his head stuck in a microwave oven. That was cool. Microwave ovens were still relatively new and exotic and I had been thinking about experimenting with them along those lines myself, so I felt a sense of relief that someone else had conducted that particular experiment, and in print rather than real life.

## A Titanic Undertaking

So. *Titan*, the first book, is about the spaceship *Ringmaster*'s mission to Saturn. Varley doesn't waste a lot of pages in trying to prove that this is "hard" science fiction or try to impress you with his detailed knowledge of electronics or astrogation and extrapolation of this technology — that kind of thing doesn't date well. He gives us just enough detail to make it more-or-less plausible, and does so efficiently, and then moves on. Mostly, he spends the first few pages introducing the cast. We learn that the captain is Cirocco Jones, a somewhat severe, multi-racial woman, and among the crew are Gaby Plauget, a female astronomer, two disturbing female clones in an incestuous relationship, and a couple of male crew members who generally don't feature as prominently in the story as the women. There is a no-nonsense presentation of their sexual relationships, erotic without slipping into bodice-ripping prurience.

This might sound pedestrian, but I assure you it was fairly radical at the time. A female heroine — incredibly competent, but not just written as a man with breasts. She's got issues, but they don't cripple her. And the men aren't parodies, but mostly they're just not that important. It's likely that Ripley, the heroine played by Sigourney Weaver in *Alien*, was inspired at least in part by Cirocco Jones. She's a serious bad-ass. And she, and Varley, never feel the need to apologize for this. She is knocked down, she's hurt, she's traumatized — but she never goes all squishy. She gets it done. It was, I think, one of the first novels I had ever read that bothered to take female characters seriously, in their own right, and not just make them eye candy or foils or conquest material for the men.

## Plotting Along

Anyway, the crew discovers a new satellite of Saturn, and realize as they image it up-close that it is so regular in shape that it must be artificial. They are kinda right. In fact, it is a torus, a sort of space station, but as to whether it is an artifact or not — that's complicated.

The story moves along quickly and the spaceship is seized by cable-like tentacles, or tentacle-like cables, and torn open, which is a bad state for a spaceship to be in. The crew members are able to don their pressure suits, but several are injured, and Jones is knocked unconscious. They awaken inside the torus, ejected from the earth itself in a weird reverse burial and rebirth, naked except for the broken metal remnants of their spacesuits. The story then becomes a quest for Jones, who meets up with Gaby, as they try to find their remaining crew members. A couple of them have working suit radios, but most do not, and it's a big, big place to explore.

That's the basic story of volume 1. Along the way the semi-bisexual Jones has a half-hearted lesbian affair with Plauget, they discover one crew member living inside a giant, intelligent blimp, and they meet the Titanides.

The Titanides are intelligent centaurs. Their language is musical; their family names contain references to musical scales; a prominent Titanide character is called Valiha (Aeolian Solo) Madrigal. The middle names refer to the particular circumstances of their birth, which I'll describe in more detail later. Jones discovers that she can speak their language; apparently she was programmed with this knowledge, while unconscious.

Oh, and Titanides have three sex organs each: a front penis or vagina, scaled to human size, and a middle penis and rear vagina scaled like horse parts. And they know how to use them all. Do they *ever*.

Naturally, I was utterly enthralled.

### **Winning Hearts and Minds**

So, there's a war going on, and one of the crew members has gone mad, and there's a disturbing rape scene. We learn that one of the two clones has been turned into an "Angel," a member of the bird-like race that is at war with the Titanides. And we learn that the whole ring, 1300 kilometers across, is not actually an artifact *per se*, but an organism, that grew from a seed, from a long line of similar organisms, and it is an intelligent being.

The being is called Gaea, and Gaea is also its mind, centered in some sense in the hub, which is a 600-kilometer climb straight up, and Gaea is also in some sense a human avatar that represents this imposing being to the humans. Gaea can sculpt DNA and create and alter living thing, the way that humans can make electricity do their bidding, but directly, the way we grow children without the need to understand ontogeny and phylogeny. There is no "technology" as we understand it, in Gaea; she meets needs — for things like radios, transportation, AIs, industrial machinery — by creating organisms that are, or grow, or do, the things that need making or doing.

Wanting some answers, especially about the brutal Angel/Titanide war, Jones and Plauget decide to climb up there to the hub. They learn that Gaea, both the space station and the mind inhabiting it, is falling into old age and disrepair; she's a little senile, and a lot insane.

And about that Angel/Titanide war. They hate each other — viscerally. They aren't competing for resources; they aren't tribes of the same species fighting each other; there's no rational reason for it. When Jones gets to grill Gaea, the avatar, about it, we learn that there is no grand reason for this animosity; Gaea is not a God whose ways are mysterious but whose motives are above reproach. Gaea just thought it would be entertaining to reprogram the Angels and Titanides to hate each other, viscerally. She got the idea when she started receiving television signals from Earth, because she enjoyed war movies and thought it might be fun to stage her own. She didn't ask the combatants how they might feel about this arrangement.

And so Jones solves the problem. Gaea removes the compulsion to fight; the

Titanides are swallowed up and reprogrammed, and emerge with no memory of their former lives. This is a mixed blessing to Jones — they do not remember her. It also raises some Interesting Questions about life and death and identity and consciousness, but Varley’s great genius in this series is that he never, ever bashes you over the head with all the Interesting Questions; he’s telling you a story.

Anyway, *Titan* is a brilliant book — clean and tight, with a fast-moving plot, and amazing, beautiful, scene after scene. It holds up very, very well; I re-read the series this year, for the first time since I was a teenager. Varley’s inventiveness and steadfast faith in his audience makes this an absolute classic, a piece of “golden age” science fiction re-imagined, decades after the golden age ended, and dropped like an improvised explosive into the middle of the churning, gutless moralizing and culture wars of the Reagan years. And so there were more books in the series, so let’s move on and get the next burning question about human/Titanide relations out of the way.

### **They Fuck Horses, Don’t They?**

Actually, not until the second book, and technically they’re not horses, even though they poop on the floor. But there is no doubt that Varley designed the Titanides — or rather, borrowed the design of the Titanides and enhanced them a bit — to make this possible, assuming a certain bravery and maybe the use of a customized, reinforced bed or stepladder to assist.

The second book picks up a few years later. OK, a lot of years later — seventy-five, I think it is. Did I mention that Gaea grants the humans rejuvenation? Gaea grants the humans rejuvenation, or at least some humans she favors; she has created a fountain of youth, which Jones takes advantage of periodically, and Jones is not only youthful, but has been *optimized*. Gaea is not a goddess, but she can grant immortality, at least of a sort, although she is not truly immortal herself, and knows that her life cycle is coming to an end. And as to the question of whether there is an underlying meaning or plan to the universe — well, she’s as clueless as the rest of us. (Did anyone ever attempt to ban this book from school libraries? Not that I’ve seen, but if certain Respectable People ever noticed it, I can’t imagine they wouldn’t try.)

Anyway, where was I? Oh yes — our hero character, Cirocco Jones, is not so heroic now; she’s still revered by the Titanides, but she’s a now a pathetic alcoholic, and her alcohol abuse is not rendered romantic or comic; it’s a disaster. It’s only her “enhancements” that have, apparently, kept her from drinking herself straight to death. While Jones is barely functioning, Plauget has spent much of the last decades working on big engineering projects, such as a massive highway project.

## Pay No Attention to the Drunk Behind the Curtain

So what happened to Cirocco? She has been given the role of “wizard,” hence the title of the volume. After the angel war, something needed to be put in place to keep the Titanide population in check. Gaea’s solution was to make Jones herself necessary for Titanide reproduction. It’s a big responsibility — she has to review the plans for each Titanide baby, and sign off on it. She can’t grant every Titanide who wants to have a child permission to do so. And she knows that if she dies, the Titanide race will go extinct. Hence, she has to keep living, while she’s lived so long with this burden that she wants to die.

What “plan” for each baby? Titanide reproduction is complicated. An individual can have up to four parents. Male/female intercourse with the frontal, human-sized organs, considered a special, private activity, produces an egg — except in one special case. These eggs aren’t considered embryos yet. They have a long shelf-life, and are inscribed and kept as mementos of special relationships. By comparison, the Titanides fuck with their horse-sized organs very casually. Decorated with piercings, and androgynous, and often adorned in flowers, they are a race of xeno-hippies, the Flower Children of the universe.

As a result of their physical layout as centaurs, there is one taboo that Varley didn’t bring up. Titanides of either gender have only the rear anus, and so there is no human-scale, *front*, “special” version of Titanide/Titanide or Titanide/human anal sex, either hetero- or homosexual. When Varley dreamed up the Titanides, it seems he didn’t want to go there. Granted, two anuses seem redundant and physically unnecessary — but so do extra penises and vaginas, except that they are needed for the complicated business of making Titanide babies. For a story that works hard to smash an impressive number of taboos, that seems a little hetero-normative. Of course, Varley hints but doesn’t dwell much on all kinds of other possibilities involving lips, tongues, fingers, and the human- and horse-scale parts of all kinds, so your perverted imagination has an awful lot to work with, if you’d like to set a slash fiction piece in Varley’s world.

Where was I? Oh, the egg resulting from frontal intercourse. An egg must be activated by the wizard — as wizard, Jones actually has to put it in her mouth, since her saliva alone has a compound that activates the egg — then implanted in a rear vagina — but not necessarily the rear vagina of the Titanide that produced the egg. The activated egg must then be fertilized a second time with a Titanide’s horse-sized middle penis, before it really starts to develop as a Titanide child.

There are a lot of combinations, involving up to four Titanides. They are enumerated as quartets, trios, duos, and a single type of solo — the “Aeolian Solo” which is Valiha’s middle name. In a solo, semen from the central penis can be placed in the front vagina of a female Titanide to produce an egg, and then semen from the same source can be used for the second fertilization in the rear horse-sized vagina. And so the phrase “go fuck yourself” is not necessarily an insult in Titanide.

### **Good Lord, How Long Have You Been Waiting to Make That Joke?**

If your mind is spinning a bit trying to think through the possibilities, don't worry. Varley has conveniently provided a chart for our perusal. There's really no need to memorize it to understand the story, though. One can imagine him, laying out the possibilities, perhaps on a piece of graph paper, perhaps with a mechanical pencil and an engineering template, perhaps chortling to himself as he combines two things he clearly enjoys, or at least enjoys thinking about — music theory and sexual intercourse. I won't explain all the nomenclature, but addition to the Aeolian, there are Phrygian, Lydian, and Mixolydian; combinations can be "flatted" or "sharped." And a Titanide family? It's called a "chord."

Humans and Titanides can fool around in various ways, but the burning question is "can they produce offspring?" Science would say "no," but the Titanides are a *created* race, and Gaea has a sense of humor. So the answer is "yes," although Titanide/human offspring are never featured in the books.

### **Strength and Helplessness**

The second book features a couple of new characters — Chris and Robin. Robin is an grotesquely tatoored, epileptic young woman from a radical separatist coven of lesbian witches, who knows virtually nothing about relationships between the sexes in the outside world. Chris, a pilgrim from earth, suffers from psychotic fugues. (You know, just two stock characters that could have come straight from from central casting, really.)

Tourism from Earth is booming. Gaea, whose technological powers border on the godlike, grants the occasional pilgrim special favors. There's another quest. Oh, and the regional brains that make up part of Gaea's intelligence are becoming crazed and rebellious. Hijinks ensue! And the stakes, as they say, are raised — raised a lot. Gaea plays for keeps.

Both Chris and Robin will face, in their respective quests, not the need for strength, but the need for weakness — the need to accept help; the realization that their human bodies and minds will occasionally betray them and they must rely both on the kindness and forbearance of other humans and Titanides for their very survival; Robin becomes helplessly incapacitated by seizures, and Chris goes out of his mind, becoming a different person — raging and violent, or sexually adventurous and aggressive — and doesn't remember, afterwards, who he's been or what he's done. They represent two additional twists on the anti-heroes of the trilogy — and find redemption in acceptance of their weakness.

### **Demon Seed**

*Wizard* ends in a victory, but with the shattering losses Jones endures, it's not a happy ending. As the third book opens, Jones is plotting her revenge. She's kicked the bottle — and finds that Gaea has been spying on her. It's an inside job. And she's got a mission: to bring down Gaea. *Demon* sprawls a bit, and

Varley really goes all-out with the crazy creatures, but it all fits, and the plotting is reasonably fast-paced, as Jones and the Titanides get their war on with a powerful entity who has slipped quite thoroughly into madness. And in a being who can create living organisms at a whim, this madness is highly entertaining.

## **In Which Your Author Awkwardly Attempts to Wrap Things Up**

So, I feel that I have to talk about *why* these myths, these stories, these theories, were so valuable to me; why I reveled in them, recall them so fondly, and re-read them now. The short answer is that “I don’t know.” But what I do know is this: for whatever reason, I decided at a very young age, as I read everything I could get my hands on, that I would be the type of person who would explore just about any possibility, and would not immediately judge. I knew the instance I read one of my mother’s medical encyclopedia’s entry about hallucinogenic drugs, at a very young age, that I would one day try them, and did. I read about the varieties of human sexual experience and knew that I would one day explore all I felt I could of them. I read about exotic foods and exotic places and although I am not suited by temperament to be a world traveler, and I am not going to be a rock climber, or jump out of an airplane, I have always been of a mind to taste just about any food or philosophy and experience and I have found many, many of them good.

Perhaps uncritically so, but I’ve always thought that becoming conservative and curmudgeonly in my old age, and unwilling to try new things, was something that would likely take care of itself. There was no reason to cut off the possibilities prematurely — but more importantly, there was no reason to take the religion of my mother, or grandmother as my unquestioned beliefs; there was no reason to take my grandmother’s tastes in food as my own, and stop there; there was no reason to take the *moral* view that my parents and grandparents had of the world and make it my own — no reason to share their judgments. There was plenty of judging going on all around me, growing up; “that’s different” and “you’re different” were both grave insults. I vowed at such an early age not to fall into this trap that I have no memory of thinking otherwise. Perhaps it was baked-in.

Novelty-seeking has been studied; it’s associated with dopamine receptors, with Attention Deficit Disorder, and compulsive spending. I could plead guilty to both of those, I suppose, although they are better than the deep depression which I was unable to pull myself completely out of for many years, and which still hovers over my shoulder waiting. I could be a little bipolar; I know I’m a depressive. But I’m a novelty seeker, and always have been — seeking the new, and accepting it. I am hard-wired to be, *culturally*, a leftist. My quick mind becomes and always has become painfully bored very easily, and I do remember that — and that is why one develops a life of the mind; it’s self-defense. When the world cannot provide much stimulation, your inner life can — and that’s where the Big Ideas come in.

The psychiatrist C. Robert Cloninger has studied this and says that while it can yield problems — employers don't really like employees that are constantly getting bored in their work — it is adaptive; a certain portion of the early human population must have possessed a “migration gene.” The research suggests it is a good predictor of success in later life, and ties it to continual personality and intellectual growth. But, I believe, it is just as good a predictor of a difficult childhood, because in communities like high schools, the new is viewed with suspicion, and many young people double-down on conformity, out of fear of being the one that is singled out, ostracized, and left behind. They are then all too quick to become enforcers of that conformity.

### Media Discussed in This Post

*This list does not include books, chapters of books, or other works that I only mentioned briefly in the text above.*

- The Gaea trilogy: *Titan*, *Wizard*, and *Demon* by John Varley

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