

notes on Ted Chiang's *Understand*

shaman / superman

the greater the brain damage, the more hormone K enhances. this aligns Greco with the Shaman, with the Superman: he gains his new ID via trauma, in a near-death induction.

the break-down *allows* the reforming. it's Gandalf the Gray re-made the White, burning in the Balrog's hellfire. it's Bruce Banner writhing in the gamma-ray.

for Greco, there are two major traumas. first his near-drowning, that makes him a hormone K candidate. he tempts death again with his fourth K-injection, emerging badly bruised from the violent convulsions. his tongue bitten bloody, his throat raw from screaming.

and a new ID means a haircut! there's hair in his hands - in his private throes, he's pulled out some tufts. he's grasping at his higher style—Übermenschen-bald.

accidental / chosen

like many lab-made superbeings, Greco is an accident. falling under ice is what gets him in the cutting-edge therapy; and the IQ-boost is an unpredicted benefit—or so claim filings with the FDA—of a therapy meant to restore cognitive function.

Greco is surprised by his scoring on the first pair of tests. he doesn't *feel* smarter, yet. his fourteen-digit recall, his resurfacing memories,

all feel alien, *happen* to him: unbidden in his dreams, or psychologist-elicited.

until the third ampule, Greco doesn't choose to be super—yet nor did he choose to exist! his K-boost is not unlike the accident of birth, like inherited intelligence.

yet Sorensen Pharma *is* in the business of cognitive enhancing—repair *is* improvement, from damaged to normal. and relative to your own volition, your native smarts are an accident; yet thru sexual selection, the species has been choosing bigger brains—or their expression in wit & other social competencies—all along.ⁱ

his pre-K self is predictive of his post-

as his test-scores grow, so does his distance from his testers. he's superior to these Specialists, each with their pet Intelligence theory, each one twisting the incoming facts to make fit.

they're like his old college profs: "They still have nothing to teach me." even pre-K, he was prone to solo thought, suspicious of the Paradigm & its trickle-down. His "ideas of education", he tells Dr. Hooper, "didn't mesh with the professors".

back then, he couldn't read all he was interested in; post-K, he's burning through his bookshelves, even "technical material". Hormone K ramps up—& justifies—his arrogance, it doesn't make it new.

Greco is like Eddie Morra in *Limitless*—prone to the drug's more dramatic effects. Eddie is a writer already: a depressive over-cogitator,

stalking our streets in a deep mental rut. in a few bouts of key-pounding, NZT-Eddie writes an epoch-making Extravagance, a Manifesto to supplant, if not Marx from the Canon, then Eckhart Tolle from the Bestseller list.

as Eddie's dealer confirms: "It works better if you're already smart".ⁱⁱ Greco & Eddie remind me of the Exegetical Philip K. Dick, who is primed to receive the pink info-beam in 1974. on the one hand, VALIS is out there, so

I don't feel I was "picked" by a Future Force, as its instrument, etc., bidder, to make manifest its word, etc., any more than when you are watching a TV program the transmitter has picked you.ⁱⁱⁱ

yet "some people tune in, some do not." Dick's query persists through eight years of unpacking the Signal: *Why me?*

perhaps because he'd shown, in his '60s Sci Fi, a feel for the Gnostic narrative that VALIS needs broadcast. all his life, he'd never just look *at* a wall: he'd try to see through it. like the color-blind Dalton, who didn't realize his anomaly till late into his 20's, Dick had to learn how odd he was: that for him, 'looking at' *meant* 'trying to look through'.^{iv}

Dick, like Greco, had different ideas than his Professors.

The criticism, which I remember using in Philo 10A, a survey course at Cal, was that "What value does this metaphysical Eternal Real World of Forms of Plato have, since we can never encounter or experience it?..."^v

this is how I imagine Greco's youthful skepticism: an arrogance not yet earned, but promising. a skepticism healthy, a vital mind's willfulness.

It is an index of the ignorance of our world today that my instructor's answer was not, "But later on for eight hundred years people did experience Plato's world of the Idea," but rather was that if I was going to question all this, I should quit the class. I did so.^{vi}

Dick gets his answer decades later, in the depths of his autodidacticism: from the entry on Neoplatonism in his *Encyclopedia of Philosophy*; but first from his own gnosis that "really put an end to such bickering as I engaged in back in my college days."^{vii}

the Story gets better. did Chiang?

Dr. Klausen is CIA: commissioned to assess & press-gang a savant strategist. his test consists of scenarios to solve, whose realism impresses Greco.

one describes "mobilizing people to prevent the construction of a coal burning plant". indeed, this is realism - from Chiang. a lesser writer might have asked Greco to *suppress* the popular protest, the Gov being in bed with industries of dirty entropy. but Chiang's CIA would have him infiltrate the Green movement, and lead it; or something more insidious & byzantine.

the story gets better as we go. this is proper, for it's told first-person by a person who improves. with every emptied ampule, his language & the action that he narrates elevate. George Saunders performs a similar feat in "Escape from Spiderhead" (2010)^{viii}, whose narrator's expressiveness ebbs & flows with the Verbaluce drip. a closer model may be *Camp Concentration* (1968) by Thomas Disch, another journal of burgeoning genius, of lab-borne apotheosis. yet Disch's Louie *begins* a

published poet with a high IQ [160]—which gives him room to grow into his author's 190, I suppose?^{ix}

Greco is the *fictive* narrator. Chiang is the author. the latter too, gets better as we go. the early pages struck me as a competent set-up, a bit familiar. i was almost put off by the prologue nightmare Greco wakes screaming from, and by the Office Realism, the opening scene's yawny patient protocol.

the finale, though, is wickedly smart. devastating!

we tend to get smarter with smarter interlocutors. as Greco regrets, "my development is limited by the intelligence of those around me, and the scant intercourse I permit myself with them." did Chiang get smarter as he wrote a smarter Greco, thus hung around a better mind at the writer's desk?

a trite metaphor for Connection

Greco finds himself multitasking: touching up a holograph while chatting with his old friend Jerry. Jerry, Sue & Tori all are going to the movies; but Greco likes the Playhouse, now, a monologue-in-verse in four meters.

we follow Greco's own interior monologue, his play-by-play of a reflectance calculation on a pair of helical gears: "A trite metaphor for cooperative action" he observes, "but that's what the customer wanted for his ad."

the client is Chiang, who commissions by writ; and *his* complex metaphor, of Greco handling the trite one while saying good-bye to

bonhomie with normals, is clever. Jerry & the girls are uninteresting, now, as is the design gig; but Greco's realization he can *handle* them at once is fascinating.

the metaphor of Greco working on a holograph—a *total vision*—is apt. it's of interlocking gears, and the light they give off; as when Greco interlocks with his nemesis, Reynolds, in the final Act.

excessive growth of the optic nerve

they try to call Greco back for tests. Dr. Shea warns of a side-effect they've found, of excessive growth of the optic nerve.

Greco knows he's lying, that effects as these *might* arise "but I'll discover them by myself".

The b.s. warning is an accidental prophecy. it tells of Greco's final, fatal Vision—*cued* by Reynolds' grandiose gesture & command to "Understand", yet which Greco discovers, indeed: he infers it from the clues Reynolds planted.

the Misunderstood Genius

next-gen Cryptography & peeks into Deep State perfidy don't fascinate him. they're means in his chase of the "intellectually aesthetic". they help him get more K, and get the G-men off his case.

Greco slips a worm into the DMV computer that will sub for his image, whenever it's requested. he *tells* his pursuers & profilers he's done this. he knows they'll take this

"pointless revelation" as a boast that he couldn't resist, sign of an exploitable arrogance.

i like this variation on the Misunderstood Genius. Greco *isn't* seeking adulation. he *disguises* himself in a superiority complex. he protects his rare & alien thing, his solo quest for gnosis, by projecting what's familiar.

the Brain is amped. with it, the Body

his brain pulsates with thought & ambition: with ambition for greater thoughts. "I want to find them, and comprehend them. I want this more than anything I've ever wanted before."

he's aware of "many emotions beyond those of normal humans." his prior love & angst were "like the infatuations and depressions of childhood", mere "forerunners of what I experience now".

the stereotype of the high IQ decoupled from bodily competence is disconfirmed. his brain is amped, but co-ordination is brain-centered, so "Skills that normally require thousands of repetitions to develop, I can learn in two or three." he has somatic awareness of glandular secretions. he's conscious of the role of neurotransmitters in thoughts, as he thinks.

perhaps he sees, while hugely gestalting, it's his superactive NMDA system.^x

how to do a Super-mind, first-person?

the CIA frames him as a mental case escaped, as murderously insane. shades of the truth,

not its opposite. he *has* escaped—from army-medical control; and *was* a mental patient of sorts. he *is* a public danger, being powerful & unpredictable. he *did* convey intent to murder government agents.

it's fun, though not plausible, to re-read Greco as an unreliable narrator, as a Charles Kinbote on the lam. "Hormone K" is his grandiose spin on the quotidian dish of pills.

why do we believe he's so smart? largely by suspension of disbelief—by default trust in our Narrator. our only independent proof is words on the page, the quality of Greco's language.

yet—necessarily—Greco never says a thing that Chiang could not have. Chiang *is* smart, yet not 4-K smart, perhaps. Greco never *states* his achievements in Number Theory, explicates that new Sociology. we never get a line from that "*Finnegans Wake* multiplied by Pound's *Cantos*" to judge for ourselves.

yet we couldn't. would it not be beyond us?

it's an impossible demand, to tell a god's story in the first-person; yet Chiang negotiates it nicely.

if all we got from Greco was his insistence that "I acquire years of education each week, assembling ever larger patterns", that "I view the tapestry of human knowledge from a broader perspective than anyone ever has before", we'd suspect substanceless boasting. we'd at least get bored with him.

instead, we get thrilling hints of Greco's conceptual achievements. i'm tantalized with the idea that "Physics admits of a lovely unification, not just at the level of fundamental forces, but when considering its extent and

implications", and forgive the vagueness of "extent and implications."

for it's tricky: too much detail betrays Greco's all-too-normal ventriloquist. of that *Wake-Canto*, we're told that "some of the juxtapositions are delightful. each line of the poem contains neologisms, borne by extruding words through the declensions of another language"—which is what occurs in *Finnegans Wake* already, no?

Chiang *could* have presented us with a "plausible incomprehensibility", e.g. with Greco's unedited musings on the inadequacies of Gödel that scan like a page from the Voynich manuscript. yet that would not be *smart* of Greco—or polite—if his audience is we normals.

The Fifth Ampule?

a fan-fic sequel—*The Fifth Ampule*—entices me.

a cheap temptation, maybe. I *like* my Enlightenment implied, seen forever on the verge!

after the 4th injection, Greco is already at the logical limit of *self*-knowledge:

I can see my own mind operating. . . . I see the mental structures forming, interacting. I see myself thinking, and I see the equations that describe my thinking, and I see myself comprehending the equations, and I see how the equations describe their being comprehended.

opening his eyes, the World is nearly Unified:

Blinding, joyous, fearful symmetry surrounds me.

So much is incorporated within patterns now that the entire universe verges on resolving itself into a picture.

all that remains is the marriage of Inward with Outward, of his meta-self-awareness with the cosmic Mandala.

I might determine whether mind could be spontaneously generated from matter, and understand what relates consciousness with the rest of the universe. I might see how to merge subject and object: the zero experience.

good guy / bad guy

to a reckoning of demi-gods, the story draws us onward.

yet which one is the Villain?

in *Unbreakable* (2000), we know early on that we're witnessing a low-key Origin story. the surprise comes late, as Elijah Price expositis his master plan. we realize that he's David Dunn's Lex Luthor—and we're now in his lair.

Understand ends in Reynolds' Philadelphia walk-up, with trappings of the Lair. an electric lock opens on arrival. a strange polyphony accompanies our approach, like churchy organ sounding thru the Castle as we step the cold stone. when we enter his command center, he "turns around smoothly, slowly" in his swivel chair. he puts aside what we've interrupted him from, and smiles.

yet look at Greco! now we know why Dr. Evils are bald: "to allow greater radiative cooling for the heightened blood flow to my head." give the man his black cape & high collar—with some mumbling about "bilateral venting"—

and *ta da*, the classic Costume!

Greco just wants beautiful knowledge. *he thereby threatens the planet.* he sees, at the limits of his 4K thought, that his legacy wetware won't sustain "a self-knowing psyche". he plans to debut "explosive theoretical and technical breakthroughs" to get what he needs.

it's the central conceit of *The Man Who Fell to Earth* (1963), where an alien seeds Earth R&D to get built an ark for his homeworld. Greco, too, would use us all to build his rocket—a Tech to get him high into his heaven.

knowledge, for Reynolds, is for making things better. what could be better, counters Greco, than to know?

perhaps a world where Greco prevails is ipso facto optimal. he maxxes out the Calculus, if Gnosis is an infinite good.

Reynolds intends to control us. at least he's intensely *interested* in us. say what you will of jealous Yahweh—at least he's not indifferent to his People!

Reynolds plans to boost a few minions. those who turn a threat will be dealt with. yet Greco concedes, even as he withers at his rival's hand:

Normals might think him a tyrant, because they mistake him for one of them, and they've never trusted their own judgement. They can't fathom that Reynolds is equal to the task. His judgement is optimal in questions of their affairs, and their notions of greed and ambition do not apply to an enhanced mind.

is Reynolds Moral, and Greco the Aesthetic? are their visions *each* moral, yet tragically

incompatible?

perhaps current Ethics can't assess these giants. we can't expect the Supers to behave like us, make sense to us. Greco, perhaps, *rightly* transcends Morality. i'll skip the Nietzsche and mention, rather, Moksha: in Hinduism, life's highest End—which [debatably] trumps Dharma. in Moksha we're released *from* duty & the principled dualities.

how do gods speak?

Greco can't discern any pattern in the modulations. "An experiment in high-information density music, perhaps."

this welcoming song is beyond him, a dangerous sign. it's a dominance display, a elegant growl.

Reynolds shows his back in this fullest way: "he is restricting his somatic emanations to comatose levels." this turned back, at the outset of combat, is another growl, a predator's stott. *To you, I give Advantage - so superior am I!*

yet Greco is as close to peer as Reynolds has, may ever have. a community of two, though brief it shall be. even as they glean strategic info on the other, they agree to share their Findings.

what might a Dialogue of super-minds sound like?

i love Scott Alexander's answer in "The Hour I First Believed": *Hypothetical*.^{xi} when interlocutors can perfectly model the other's mind, they may speak quieter than telepathy.

their dialogue *is* real in that it's consistent across the minds, and has effects on their post-dialogue behaviour.

they've considered independently, in the days leading up to their showdown, a thousand crude moves—like smearing doorknobs with neurotoxins, or kill-strike by military satellite.

A simple infinite regression of second-guessing and double-thinking has dismissed those. What will be decisive are those preparations that we could not predict.

they're finely negotiating, before they share a word—so mutually dispense with wasteful tactics.

they also talk loud: by turning huge systems into graphemes. Reynolds first signals his existence to Greco by dipping, at once, five of Greco's stocks, whose corporations form, in acronym, an anagram for "GRECO". Greco is impressed. it's gods who give signs by commandeering weather. they do this, first, to attest to their godhood. when writing with lightning, the writer says "First, I'm great."

a supermind might speak soft or loud, fast or slow. there's the manic genius who sputters arcane mentations in long strings of Latinate polysyllables. there's also the laconic thought that drops a cryptic aphorism.

cryptic to normals. to one's peer, the Word could be lucid & full of implication, a koan solved at the speed of conversation. such are their first face-to-face utterances, following a brief exchange of "fragments from the somatic language of the normals":

Reynolds says, quickly and quietly, five words. They are more pregnant with meaning than any stanza of poetry: each word provides a logical

toehold I can mount after extracting everything implicit in the preceding ones.

his words sum a revolutionary insight in Sociology, an early K-fueled finding. Greco responds with seven words of his own: the first four summing the distinctions of Greco's own version of that insight, the remaining three asserting a non-obvious result of that distinction.

We are like two bards, each cueing the other to extemporize another stanza, jointly composing an epic poem of knowledge.

Chiang portrays Colossi, and we watch it all baffled & transfixed. we're the audience at Gandalf versus Saruman:

But they were shut out, listening at a door to words not meant for them: ill-mannered children or stupid servants overhearing the elusive discourse of their elders, and wondering how it would affect their lot. Of loftier mould these two were made: reverend and wise.

how do gods fight? Clarke's 3rd Law

Chiang imagines combat powers well beyond ours. they're called, in Fantasy, Attack spells. the Wizard has always been a man of Applied Science—a Proto-science or Alt-science—but Sci Fi aspires to Realism. it explicates the magic that, by Clarke's 3rd law, advanced Tech resembles.

Greco's first attack is quite physical: a bio-feedback loop that would burst his rival's brain capillaries. Reynolds hasn't explored this niche of weaponry, yet he comprehends, improvises a mitigation, & stabilizes—all within a second. he admires these yogic

Missiles, while dissing their Sender—"appropriate", he observes, "given your self-absorption."

it's Mentalism, but crude, we agree—now more worried for Greco.

he gets what he'd sought—in Death?

Greco wants to Know. his ambition is Faustian, tragic.

my sister wonders: does Greco get, in death, what he'd sought?^{xii} an enlightened mind can't be sustained on legacy wetware. yet perhaps it can be tasted as it burns thru its host.

Understand: that when you finally get it, your mind will collapse. remember Lovecraft's warning:

The most merciful thing in the world, I think, is the inability of the human mind to correlate all its contents.

i like this Version, where he sees the face of God, then must die of it. where Reynolds grants his rival's great wish, and deals a fitting death—in one.

in nobler interpretations of the demon-king Ravana, he kidnaps Sita only so he'll die by Rama's arrow. he seeks his liberation from the Avatar.

in the Pantheon Annals, many such exalting Nemeses! perhaps *Understand* is an update of one. one of those myths was inchoate prophecy of War to come of two A.I.s; the War goes quite as Chiang has writ, though he, like

the Greeks, anthropomorphized :)

Chiang as thy Destroyer

the title is a tad eerie, going in. we suspect that Chiang will subvert, somehow, this demand of the Greek Athenaeum, this banal hope of middlebrow lecture-browsing.

emerging from his story, we recognize the homicide: the self-destruct command.

eerie yet: notice that a title is where Author speaks to Reader, direct. the *title* isn't spoken by Greco. it's no quote of Reynolds.

it's Chiang inviting *us* to understand—yet what?

if I were an unknown sf writer—paranoid & jealous, admiring yet resentful of his genius—i might twist the title as follows. Chiang, like Reynolds, is a distant mental giant whose intentions we infer from his graphic traces. he invites *me* to a community of Two, to a friendly game of Author & Reader. and as I die with Greco, I get that Chiang is asking *me* to know *his own* excellence: to see that I will never write like *this*.

in my head, he's planted clues of his genius; the title now invites me, logically compels me, to draw them in a withering gestalt.

but let's not be paranoid about Chiang! let us, like the Paranoid, see this plot everywhere! authorship is social performance. the title implicit of many works is *Understand: I'm Great*. this command-thesis is explicit in much Rap, and Norman Mailer. the Joyces, Pynchons, & DFWs are only more polite, or

passive-aggressive, in their advertising.

many of Chiang's intelligent readers will know Greco's story already: of coming to awareness you're the smartest kid in the room, of moving thru life's ever-bigger salons, always suspecting there's a Seminar somewhere ahead, a bookstore Q&A or comments thread, where your Better awaits a mutual reckoning. if your self-worth has, by mentorly praise and the proof of success, centered on the notion that You're the One, then that convo with *your* Reynolds, that confirms your inferiority, would indeed wither—if not reducing you to catatonia or lunacy, then taking you off your game, getting you to second-guess your inference.

after your Reynolds, you're still alive, still on-track for your doctorate; but who needs a Nobel, anyway? it's so politicized; and you put away, quietly, that sf manuscript you'd been toying with.

the smartest in the Zoo

we finish Chiang's novella, look up from the page, and see that this is *our* world, already. i don't mean hormone K or half of Pittsburgh wearing air filtration masks—though these are sort of true [e.g. the advent of nootropics] and quite true [COVID]. i mean the author's vision of history, where intelligence rules, and the super-intelligent few can change everything.

a handful of Budapest-born Ashkenazi led the Manhattan Project,^{xiii} and thereby saved America and/or initiated the apocalypse. zooming out to evolution's timescale, we see that one Ape's engorged brain let it take the planet. we have, in our spread, reduced our

closer relatives: as a by-product of our expansion [the decimation of Great Apes in Africa]; and by trapping them—physically & genetically—in our farms & labs. we sometimes enhance them, to model our own progress, then destroy them & convert them to data.

in effect, if not by genocidal program, we've ensured we stay the smartest in the Zoo. what would chimps have been two million years from now? squirrels, in ten? they may not be around, in fact, since we were first to pass the post.

our Prize, of course, is we get to midwife the superAI who shall step from our skull and wipe the whole Zoo out, or save it :)

addressivity

the protagonist describes his own death. this ending brings to focus a query that haunts most novels: Who is being addressed? How & When?

an epistolary novel can show the writer's death with the jittery final words ["But wait, he's at the door. I fear the worst has - -"], but Greco dies in the rat-a-tat-tat of psy-combat.

how does he tell us this, and who are we?

how to salvage the impossible communication?

perhaps he *doesn't* die in the fray. he's reduced to Reynolds' minion. he lives to tell his tale, which—"realistically"—devolves into words we normals can follow. as minion, he's "only" as smart as Ted Chiang. he writes in the

present tense because—I think Chiang agrees—it's suspenseful. it gives the action immediacy, occludes the future.

here's another theory: we're eavesdroppers on Greco's self-narration, on an autonomic stream of his multi-tasking consciousness.

i like this almost as a definition of the Reader: as one attuned to an Akaashic ether where all self-narration is available.

yet why would Greco sound so normal? it has to be he's addressing normals, and/or has himself been normalized.

he's addressing normals, in his autonomic stream? he's keeping it legible, for he knows it shall persist in some Borgesian Hall of Records.

The Fifth Ampule, reconsidered

if called on in a party game, here's my Pitch for the Sequel:

We cold-open, right where we left off: deep in GRECO's dying mind.

He utters the Word into the void. His voice is flanging widely, badly. It's the SELF-DESTRUCT COMMAND, sum of what he's just Understood.

It's his Rosebud—a puzzle to be solved.

let's have several versions of the Series! each by a different Auteur, each sprung from a different story-prompt.

Greco thinks it's his last thought, yet his mind doesn't quite dissolve; and before he can register his perplexity, his powers flood back in, sharpen his

mind & liven his limbs.

*We're 20 seconds in, and he's up again, psy-
blasting Reynolds—*

*who gets away, down a trap-door to his basement
laboratory.*

Greco *felt* he was dying: suffused in phenomenal leakage from the Model of his mind he'd constructed *in* his mind—his impromptu device to receive, quarantine, & assess the incoming Word from Reynolds.

it made the fatal inference for him; *it* dissolved, this mini-Me—while *he* deeply empathized.

his death was false, like a sisterly Pregnancy.

and that's my Pitch to Naturalize the Virgin Birth: Mary underwent history's most extreme sympathetic pregnancy, with cousin Elizabeth who'd conceived John the Baptist the usual way. and such is the power of motherly suggestion, from a girl pure of Heart, that young Yeshua suspects he's God.

i'd love to read a Naturalized account of the miracles of healing, of the Five Thousand Fed, of the Resurrection, in Chiang's next Collection. he's given us already a realistic Babylonian cosmology.

he could, for example, tell the death of Jesus from inside the hanging man's head, and Resurrect him as i just did Greco. it's not far from the orthodox take—that Jesus is the wider god's mini-Me: an avant-garde Protocol to walk the Earth, assess & receive its Sickness.

i ought to re-read *The Last Temptation*, but seem to recall the Crucifixion in a tight third-person, with novelistic realism; and emerging on the other side with Mary M, traipsing down

Golgotha's back-slope. this heaven is a flowery way i can't help seeing from the bottom, looking up: like the one the Ingalls kids come down in *Little House On The Prairie*; like the rise of green the Shawshank Tree is silhouetted on.

final pitch: the Pantheos

re the grand Unifying that Greco sought, the fusion of his lucid self-knowing with his picture of the world—i wonder if Dick has sketched the phenomenon:

This would be an interior experience; one would see nothing outside, no object, but suddenly one would experience all reality through the vision of the Other, as if seeing out through its eyes.

he comes to this aphorism:

One would not see the Other; one would see *as* the Other.^{xiv}

yet Dick means, by "Other", other living beings, the Buberian Thou—not the dead objects he demotes to "merely structure, much like the backdrop and artificial scenery in a formal play."^{xv}

to see "through" this insentient structure, thus to unify self & object, we must incarnate & animate it.

to sum his two achievements, i mean, Greco must make himself the Pantheos. become the Eye that shines within the All.

how many shots of K, for this?! and the mind-computer links he has planned, how vast! he'd turn it all to hardware—make the whole cosmos a brain of his favored Material.

notes

- ⁱ see e.g. Geoffrey Miller's *The Mating Mind*, 2000.
- ⁱⁱ And if you take a lot of it. In the novel - *The Dark Fields* (2001) by Alan Glynn - we're given every reason to think that Eddie's ex, Melissa, is the smarter one. Yet she's exposed to a less stable version of the drug, and stops after nine or ten trips.
- ⁱⁱⁱ *The Exegesis of Philip K. Dick*. Edited by Pamela Jackson & Jonathan Lethem. Houghton Mifflin Harcourt, 2011. page 11
- ^{iv} *The Exegesis*, 165-66
- ^v *The Exegesis*, p 74
- ^{vi} *The Exegesis*, p 75
- ^{vii} *The Exegesis*, p 75
- ^{viii} www.newyorker.com/magazine/2010/12/20/escape-from-spiderhead
- ^{ix} In *The Dark Fields*, Glynn turns the trick by side-stepping it, somewhat. Eddie narrates post-crash, out of MDT-48 and holed up in a Vermont motel: marveling & ruing the flame his mind once was.
- ^x <https://slatestarcodex.com/2016/09/12/its-bayes-all-the-way-up/>
- ^{xi} <https://slatestarcodex.com/2018/04/01/the-hour-i-first-believed/>
- ^{xii} We find a variant of this "thanatic enlightenment" in Greg Egan's "Eugene", where superintelligences converge on the same overriding preference: for radical non-Existence. Eugene is the first of these, a buddha-boy whose sad, all-knowing face etherealizes on the TV of his progenitors, on the night they *would have* conceived him. It's a missive from his Seat in a nirvanic sky of Nothingness. He informs them of his desire to have never existed. [from Egan's story collection *Axiomatic*, 1995]
- ^{xiii} <https://slatestarcodex.com/2017/05/26/the-atomic-bomb-considered-as-hungarian-high-school-science-fair-project/>
- ^{xiv} *The Exegesis*, p 44
- ^{xv} *The Exegesis*, p 56