

**IN THE CAN**

AF / 2014

# THE TED PLEDGE

We pledge to:

- \*Be generous with everything
- \*Give thanks for something every day
- \*Give everyone the benefit of the doubt
- \*Take care of ourselves and each other
- \*Do random acts of kindness
- \*Look everyone in their eyes
- \*Be careful with our grammar
- \*Be proud of our bodily functions
- \*Offer a smile to friends and strangers
- \*Give two-armed hugs with every hello and goodbye
- \*Strive to be the nicest person in the room

PRO TIP: Listen to Aged Cheese: SCI's First Cassette Tape and Sirens + Rhythmess + Around the Bend + 'Round the Wheel and try not to smile and give **thanks for all the goodness in life.**

# 2014 IN THE CAN

Keep it next to your toilet. That's cool. It's meant for perusal.

And just so we're on the same page, 99% of the words here are words that are not mine. But the sources are totally cited inside.

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# THE CITED 2014

>>>>>Compiled and edited by April Francis inside the Haute Closet, Chicago, IL

Hi Reader!

If you didn't already know this, I read a lot. When I'm not doing the Dose or taking off to find mountains somewhere because I just must, I read everything I can get my hands on front to back and get lost right at home. And hello, reddit.

When my buddy Clayton handed me a book at the beginning of 2014 and was like "Here is this book I made, it's all the reading I enjoyed this year; I stole the idea from someone else and hope you like it." Oh yes, Clayton, oh. Yes! I started collecting immediately, saving all the printable things that moved me.

But back to Clayton: those friendship sparks are the greatness. I've always had awesome friends but something happened this year and the friend level got turned up to 11 ... and then some. I've never been more grateful for this particular kind of love — your friends choose you. Thanks for choosing me.

And because you're my friend I'm sure you've heard me speak about my beautiful friend Sami and the love she shared with Ted, the master of the Ted pledge. Missed it? Don't! Flip back a few pages and TAKE IT IN. This, friend, is something to live by. Ever since this came across my desktop, thanks to the incredible memorial page for the man who inspired it, my life has been markedly different.

I used to live on cortisol, the stress hormone. In this tragedy of Love, I have come to understand what a complete and total waste of energy stress is. Adrenaline is one thing. But nothing trumps Love. And if you live this way you are free.

Hope you enjoy this first edition of the things I have cited, In the Can AF / 2014.

Love so much there's nothing else!  
April

PS: I may give notes at places, I may not, and would be glad to discuss any piece.

# IN A WAXWORKS

*From Adventures in Immediate Irrreality, by Max Blecher. Blecher, who wrote frequently about his experiences of depersonalization, was born in Romania in 1909 and died in 1938 of tuberculosis of the spine. In the January 2015 issue of Harper's*

In small, insignificant objects (a black feather, a banal little book, an old snapshot of frail, long-forgotten figures with the suffering that comes from serious internal ailments written all over them, a dainty ashtray made of green porcelain in the form of an oak leaf and forever smelling of dead ashes), in the plain, simple memory of old man Samuel Weber's thick spectacles: in such domestic gewgaws and trifles I find the melancholy of my childhood and a nostalgia for the futility of a world that engulfed me like a sea with petrified waves. Brute matter — in the deep, heavy masses of earth, stone, sky, or water, or in its least understood forms: mirrors, paper flowers, painted statues, glass marbles with their enigmatic internal spirals — has always kept me a prisoner bumping painfully against its walls, yet spurred me on to share in the strange and senseless adventure of being human.

Wherever my thoughts turned, they ran into rampart-like objects and inertias that brought me to my knees. Contemplating the infinite forms of matter, terrorized by their diversity, I twisted and turned for nights on end, distressed by the endless series of objects filing through my memory like an escalator with thousands upon thousands of unremitting steps.

To keep the flow of things and colors inundating my brain, I would picture the evolution of a single object, or even merely its contour; or, attempting to inventory the world, I would imagine a chain of all the shadows on earth, the strange, uncanny gray realm that lies sleeping at the feet of life, a black man stretched veil-like over the earth, his spindly legs poured out like water and his arms of dark iron, or wandering through the downcast branches of horizontal trees: the shadows of ships skimming the sea, shadows unstable and aqueous, brief intimations of sadness, here now then gone, racing the foam.

The shadows of birds in flight, jet-black, as if out of the depths of the earth and into a darkling aquarium.

And the lone shadow, lost somewhere in space, of our sphere of a planet.

At other times I thought of vertiginous mountain chasms, of caves and grottos, and of the warm, supple, ineffable cavern that is the cavern of sex. I had somehow managed

to procure a small flashlight, and, crazed with insomnia and the onslaught of objects filling the room, I would plunge under the covers and conduct an intimate, intricate yet arbitrary study of the creases in the sheets and the miniature valleys they formed. Without a precise, demanding occupation of that sort I would never have been able to calm down. My father once came in at midnight and caught me poking my flashlight under the pillow. He took it away but made no remonstrations; indeed, he said not a word. I believe he found the discovery so aberrant that he lacked the vocabulary and moral category to apply to it.

Several years later I saw a picture of a wax casting of the inner ear in an anatomy book. Every canal, sinus, and cavity was filled in, forming a positive image. I cannot describe the impression that picture made on me. I all but fainted at the sight of it. In a flash I divined that the world could exist in a reality more real than ours, a positive cavern structure where everything hollow would be filled in and the prevailing reliefs hollowed out into identical spaces that were completely devoid of content, like the strange, delicate fossils that reproduce the traces of a shell or leaf left over the ages to carve out the deep, fine imprint of its contours in stone. In such a world we humans would no longer be fleshy, gaudy excrescences full of complex, putrescible organs; we would be pure voids floating — like air bubbles in water — through the warm, soft matter of the universe.

It was in fact an intimate, painful sensation I had experienced many times during adolescence, when in the course of endless wanderings I would suddenly find myself terribly isolated. It was as if the people and houses around me had suddenly been glued into a thick, uniform paste in which I existed as a mere void moving hither and yon with no rhyme or reason.

Objects, on the whole, I perceived as backdrops. The notion of the world as stage accompanied me everywhere: life seemed to unfold in the midst of some sad, artificial performance. Indeed, the only way out of the tedious vision of a lackluster world was to see it as theater, bombastic and passé.

In summer, I would go to the matinee and emerge only at nightfall: I was waiting for the light outside to change, for the day to end. I would thus ascertain that in

my absence an important thing, an essential thing, had taken place: the world had assumed the sad responsibility of carrying on — by growing dark, for example — its regular, intricate, theatrical obligations. Again I had to accept a certainty whose rigorous daily return made me infinitely melancholy. In a world subject to the most theatrical of effects, a world obliged every evening to produce an acceptable sunset, the poor creatures around me seemed pitiful in their determination to keep themselves busy and maintain their naïve belief in what they did and felt.

There was only one person in our town who understood these things and for whom I felt admiration and respect: the town idiot. She alone among all the rigid townfolk, their heads brimming with prejudices and conventions, she and she alone retained the freedom to shout and dance in public whenever she pleased. She would roam the streets in rags — filthy, gap-toothed, her red mop disheveled, maternally cradling an old box full of bread crusts and dustbin treasures. She would show her sex to passers-by with a panache that, were the intention different, would have been called “a model of elegance and style.”

How wonderful, how sublime to be mad, I would tell myself, noting with profound regret how far the powerful, stupid conventions I had been brought up on and the oppressive, rational education I had been subjected to had removed me from the freedom of a madman’s existence. I believe that anyone who has failed to experience such a feeling will never know the world in all its glory.

My basic, elemental impression of the world as stage took on a frightening intensity whenever I entered a wax museum, but the fright was laced with a vague pleasure, and to some extent with the strange sensation everyone experiences at one time or another — that of having lived in a certain setting before. Should I ever sense the impulse for a goal in life and should such an impulse require a link to something truly profound in me, something absolutely essential to my nature, I believe my body would have to become a statue in a waxworks and my life a simple and never-ending contemplation of its exhibits.

In the mournful light of the carbide lamps I felt I was truly living a life all my own, in a manner unique and inimitable. All my daily activities could be shuffled like so many cards: I cared for none of them. Man’s lack of responsibility for even his most conscious acts was perfectly obvious to me. What did it matter that I or somebody else performed them, given that the diversity of the world engulfed them in the same uniform monotony.

In a waxworks — and only in a waxworks — there was no contradiction between what I did and what happened. Wax figures were the only authentic thing on earth: they alone flaunted the way they falsified life, and their strange, artificial immobility made them part of the true spirit of the world. The bullet-riddled, blood-stained uniform of a sad, sallow Austrian archduke was infinitely more tragic than any real death. A woman with a pale yet luminescent face, lying in a glass box and sheathed in black lace, a striking red rose between her breasts, her blond wig coming undone at the forehead, the rouge in her nostrils aquiver, her glassy blue eyes staring motionlessly up at me — how could she fail to hide a deep and troubling, unfathomable message? The more I contemplated it the clearer its sense seemed to be, though it remained lodged inside me, still vague, like a word I wished to recall. All I could catch was a distant rhythm.



# ON THE NOSE

*Muriel Spark, this essay originally appeared in the Observer as "Eyes and Noses" on January 18, 1953 ...*

I was given to think about noses by being given to think about eyes for an essay competition. And the more I thought about eyes, the less I had to say about them, and the more did I ponder noses. Not that eyes lack scope: but for me there was too much scope: in particular, too many adjectives capable of being associated with the eyes. Dry, ambiguous, blue, beastly, wee, or haunting eyes are manageable, but after that, the deluge: the Arcturian eye, the strychnic and the televisionary eye, usher themselves to mind; and still to be embraced remain the United Provincial, the Jacobean, the extramural, the blunt and biting, eyes.

I am for noses, because they are frugal as to adjectives and constant in form. It is said that the eyes are the windows of the soul. A fallacy; they are the windows of moods and inclinings, alarms and excursions, which act only as a magnet to more adjectives. No one with a flighty imagination should touch upon a subject which is prone to adjectives.

It is not so with noses. For, incapable of deceit, noses express only themselves. But they mean so much. In fact, the nose is the signpost of the soul. In the sweeping and general sense, that is. That anyone's can be interpreted to mean "steady and cheerful" or "homicidal and industrious," I, as an physiognomist, truly doubt. I note that the nose of an officious bus conductor is, from base to tip, altogether too officious. He lets his bus take me past my stop. I am sure he has put the Evil Nose on me. I have to walk all the way back to the National Portrait Gallery, where, on the bust of John Keats, I see an identical nose lending itself an air of the compassionate sublime.

The adjectives proper to noses can therefore be reduced to a few anthropological terms, so plain is the nose on your face. It is true that these peninsulas of the human landscape have their individual endearments. The people I admire most have noses which go off at all angles; they have nostrils like panniers, bellows, cabbage butterflies: in profile, they are cliff-edges, dromedaries, spouts of teapots and Chianti bottles. You can keep your tiny tip-tilts, which are for shop-

window dummies. You can have your chiseled classical, they are for a romantic taste. But what you prefer and what I fancy are beside the point, which is that the nose has a function.

It has three functions: olfactory, respiratory, and proclamatory, but the first two are also beside the point. The transcendent function of the nose is to proclaim humankind. That the nose is our tether between spirit and substance, Heaven and Earth, is evident from Genesis: “the Lord God formed man of the dust of the ground, and breathed into his nostrils the breath of life; and man became a living soul.” The first thing that happened to Adam happened to his nose. Therefore the nose is an emblem at once of our dusty origin and our divine.

Why else do infants reach out for our noses, except that they doubt whether we have got souls, like themselves? Remember that the newly born are, all unawares, deeply versed in the Book of Genesis. Thus counseled, our children clutch our emblematic noses, generously to give us the benefit of the doubt. Why do they consider a funny man with a false nose funny? Because, of course, they spot a heresy. He was quite a heretic, that Dong with a Luminous Nose of Edward Lear.

If neither the utterance of Genesis nor the pathetic fate of the Dong convinces you, hear what John Donne said about the nose. “The worthiest member,” he said. Regrettably, he did not actually say that noses stand for souls, but I take him to have meant it. Also in support of my proposition, Rostand provides his Cyrano. No spirit could be choicer than Cyrano’s, no nose more monstrous. This dramatic issue between Cyrano’s prominent nose and his prominent soul properly testifies to my nose-soul theme.

And I ask consideration of the case of the noses of Botticelli’s nymphs and goddesses, because it confirms my conviction. These figures have colds in their noses suggested by a touch of pink at the tip. And not without reason. Botticelli wished to convey the supreme spirituality of the exalted females. He understood that they exist, by nature, in an element so purified and perfect that when they came into a natural framework they would find the atmosphere odd. Giving them human form, in their immortal poses, he gave them a human reaction to change of climate, a cold.

# THE GRAVE-HOUSE

*William T. Vollmann from Last Stories and Other Stories*

Once upon a time I built myself a house beneath a delightful tree, but late on a certain afternoon I began to get old. The sounds of the evening unnerved me as they had never done before. I drew my curtains in order to feel more safe. Then it got very dark, and I slept a long time. When I opened the door in the morning, I discovered bulldozers digging everything up. A man in a hard hat told me to get out; this property had been condemned for nonpayment. “Why not?” I thought. “I’m too old for this.”

I bought myself a well-made house in the city and furnished it as comfortably as I liked. This time I made certain that everything was paid for. No noises ever came through the windows. My soft bed whispered ever more sweetly to me at night, and warm air sang to me from the ceiling ducts. One evening, I went to the door, but the door said: “Do you really want to go out? Stay awhile; you’ll be so much happier here.” Warm, sticky drops of something fell on my head. I looked up and saw that the ceiling was salivating. This house of mine meant to eat me! So I rushed to the closet to get my coat, but the closet said: “I wouldn’t do that if I were you.” I pulled at the handle, but the closet remained tightly closed. I sat down on the bed to decide what to do. The mattress felt softer than ever, and I became a trifle sleepy. “Now wouldn’t you like a little nap?” my pillow whispered. “I’ll give it to you just the way you like it.” So I lay back on my soft, soft bed, and my pillow wrapped around my face to kiss me. In an instant I couldn’t breathe.

After I ripped the pillow’s flabby folds from my mouth, goose down started whirling around me like malignant snowflakes. I leaped up, stepped into my shoes, and kicked the closet door until it squealed. When I turned the handle, it opened with a sob and a shudder, wetting my hand with its tears. “I thought you loved me,” it said.

"I do love you," I said. "Now where's my coat?"

"Wouldn't you rather play dress-up? The weather report predicts a cold front. If you stay indoors with me today, I'll show you costumes you've never seen. You can be either a king or a queen."

"If I play with you today, will you try to stop me from going tomorrow?"

"I've always loved you," said the closet. "It will never be easy to let you go."

"Well, if I stay here forever, what do you have to offer me?"

"What do you mean? What way is that to talk to someone who would give you everything?"

"If you'll give me everything, start by giving me my coat."

"Are you saying it's over?"

"Of course not," I said, stroking the shiny, cool handle in just the way it liked. "I'm going shopping so I can bring you back some lovely, lovely clothes."

"Do you promise?" whispered the closet.

"I promise."

I put on my coat, but just then the refrigerator spoke my name. It wished to offer me a really fancy piece of cheese. The instant I heard that, my mouth began to water, and, once that happened, the ceiling dripped more saliva on me. That discouraged my appetite, so I went to the window to investigate the weather. But I lacked the means to determine whether or not the closet had lied, because rain was running down the inside of the pane — the tears of my house, which feared that it might not be able to eat me.

Since the door refused to unlock, I broke the window with the base of a goose-neck lamp whose head kept hissing, swiveling around, and attempting to bite me. By now the world had grown dark. I smashed out every last shard, threw that quacking, squawking lamp into the hole, and poised myself to escape from my grave-house. Perhaps I should have departed sooner. The bathroom door kept slamming to and fro, the lights glowed red, and the oven timer was screaming. To tell you the truth, I wished that I could have seen something more than blackness outside. How far down did the night go? "It's past your bedtime," the house threatened. Leaping into space, I said to myself: "This is the last time I'll ever allow myself to get old."

*I love technology and encountered a lot of conflict in the tech world this year.*

**INTRODUCTION**

20  
21           1.       The founders of a red-hot technology startup named Tinder engaged in atrocious  
22 sexual harassment and sex discrimination against Whitney Wolfe, the young woman who co-  
23 founded Tinder and was the face of Tinder in magazines and in Tinder’s efforts to market the  
24 company to other young women. Tinder’s Chief Marketing Officer Justin Mateen repeatedly  
25 called Ms. Wolfe a “whore,” including in front of CEO Sean Rad, and he told Ms. Wolfe that he  
26 was taking away her “Co-Founder” title because having a young female co-founder “makes the  
27 company seem like a joke” and “devalues” the company.  
28 ///

# PIVOT IF YOU MUST, BUT DON'T TWIRL

*by Howard Tullman, the man, the myth, the leader of 1871. On his blog. Or somewhere. He certainly retweeted the link to the following, like, 1000 times <3*

I'm planning to go postal if I hear one more person pontificating about "pivoting". I know it's the biggest business buzzword of the last couple of years (I guess "disruptive" will just need to suck it up and settle for second place), but we don't have to beat the concept to death. It's not like it's a genius new idea or something.

I do get it. I've said it myself in many different ways for way too many years. Sometimes – especially in a startup – you need to change directions and sometimes – especially when things are going sideways – you just have to stop dead in your tracks (no matter how far down the wrong road you may have travelled) and start again. This is the First Rule of Holes: If You Find Yourself in One, Stop Digging. You shouldn't ever lose sight of your vision; but it's more than O.K. to alter your course – in fact, it's essential in today's rapidly-changing world to constantly react to changes in your circumstances and to the competitive environment that you find yourself in from time to time.

But here's the thing: (and let me say right up front that I never really liked Algebra or Geometry that much) – I think a Pivot can't be more than a sharp 90 degrees. It's an adjustment – a course correction – and only rarely a complete abandonment. And I think that beyond a Pivot (or maybe 2 Pivots at the most), you don't have a process or a plan, you've got a problem. And that's what I think of as a Twirl. If you're just spinning around in circles and grabbing at straws ("twirling" instead of pivoting), you're wasting your time (and, most likely, someone else's money), and you need to give it a rest. This kind of frenzy might be the right way to roll at a weekend hackathon or in a brain-storming contest or competition, but it's no way to build a business. If you keep changing your UI, redesigning or repositioning the product or service before it's even out the door, morphing the mission and the mantra, etc. – you're missing the boat.

So sit down, catch your breath, and take stock of where you're at, what you're really trying to accomplish, and whether you're even moving in the right direction. It's easy to get caught up in mindless activity. In fact, it's actually a pretty effective (albeit very temporary) cure for the anxiety and fear that every entrepreneur lives with. But it's not a solution or a strategy for success.

There is one small bright spot. It's not really your fault. It's the fault of these lean startup zealots who have misled a whole generation of young technologists. They've got the horse behind the cart and it's really tough to make any headway that way. This MVP (minimum viable product) bullshit needs to stop. It's actually not alright to have your first customers be your last beta testers. Because in this world of rapid reaction and instant abandonment, you don't get a second chance to make a first impression and – as a young business with limited resources - you don't have the time or the resources to hang in there until you get it right. In the first instance, it's about research and analysis rather than reacting to external stimuli and revising your story, your pitch, your product or your approach every few weeks. Getting it right at the beginning these days is the whole ballgame. The way you start the journey ultimately determines where you end up.

The truth is that you've got to find a need and a problem to solve before you rush ahead and start building the solution. This isn't fun and it's hard to excite your engineers and your buddies about taking care of business before you starting building your bundle or your software stack, but it's what you've got to do. This is slow, nasty work where you have to go out into the real world and do your homework. You need to find and ask prospective customers and users what their pain points are, what problems they need solved, and – most importantly of all – what and whether they are prepared to pay for a solution. Then you can build a product or a service. We need to be talking about MVA – Minimum Viable Audience (aka “real customers”) and then you can use the MVP methodology to iteratively build increasingly responsive offerings for your users.

I say fuck this “Field of Dreams” nonsense. The customers aren't coming. They won't find their way to your door because, not only don't (and won't) they even know you exist, they could care less about you and your dreams unless you've got something real, timely, and cost-effective that addresses a pressing and irresistible need that they have and one which they admit to and acknowledge having. Something they can't find a reason or an excuse to say “No” to. That's a real product. Not a fantasy.

Right now, we've got thousands of business builders who have been told that it's all about the technology when the truth is that it's all about the targets – the real needs of real customers. This isn't something that you fix in the shop – it's something you solve first in the field. Stop pivoting, quit twirling, grab your hat, get out of the office and hit the road, ask the right people the right questions, and you just might find your way to a business worth building.



# THE OCTOPUS AND ITS GRANDCHILDREN

*Rebecca Solnit in Harper's Magazine, August 2014 ... so entirely illuminating*

When an 1882 cartoon in San Francisco's Wasp newspaper depicted the Southern Pacific Railroad as an octopus with the whole state of California in its far-reaching tentacles, it launched an image of monopoly power still with us today. Supersize these animals and put people, institutions, and buildings within their reach, and those tentacles become an apt shorthand for the diversified interests of an acquisitive force. Likely inspired by the cartoon, Frank Norris took up the figure for his 1902 muckraking novel about the railroads, *The Octopus*. A few years later, Standard Oil was similarly represented in an illustration for *Punch* magazine. The animal had evolved somewhat by 2009, when Matt Taibbi called Goldman Sachs "a great vampire squid wrapped around the face of humanity, relentlessly jamming its blood funnel into anything that smells like money."

You'd think all this would give octopuses — as well as vampire squid — a bad name, but it hasn't as far as technology's billionaires are concerned. Microsoft co-founder Paul Allen is only the world's fifty-eighth-richest person at present, but he has the world's thirteenth-largest private yacht: *Octopus*. The world's fifth-richest person, Oracle CEO Larry Ellison, runs most of his fortune through *Octopus Holdings LP*. Incidentally, Ellison's Oracle Corporation is, as of April, being sued — not for the first time — as a monopoly-seeking beast. A lawsuit filed by the tech-support company *Terix* argues that since acquiring *Sun Microsystems*, "Oracle has pursued a deliberate policy of attempting to eliminate competition in the market for the maintenance and support of computer hardware running the *Solaris* operating system." Generally, policing such anticompetitive behavior is the job of the U.S. Justice Department, but it has been notably shy on that front since losing a high-profile antitrust case against Oracle after the company's 2004 acquisition of the software company *PeopleSoft*. Many of the biggest tech companies have grown by eating up smaller companies and beating the resultant antitrust suits.

The resemblance between the original octopus and today's version is more than coincidental — it's genetic. Everyone knows that to a great extent Silicon Valley comes out of Stanford University, but where Leland Stanford Junior University

comes from hardly anyone inquires. It comes directly out of the Southern Pacific, and though we tend to speak as though the nineteenth century were very long ago and any of its descendants are great-great-great-grandchildren at least, the lineage is in this case quite short. The Southern Pacific, back when the railroads were our state-of-the-art networked technology, begot Stanford, which begot Sun Microsystems, Google, Yahoo, and numerous others.

Leland Stanford, the railroad baron who founded the university in 1885, was one of the richest men this country has ever produced. Had his only child, Leland Jr., not contracted a fatal case of typhus on a grand shopping tour of Europe at fifteen, the railroad fortune would almost certainly have been left to him. Instead, his bereaved parents sought another legacy.

The father's initial idea, as reported by the pastor of the Paris church where his son's embalmed body briefly rested, was to create "a school or institution for civil and mechanical engineers on my grounds in Palo Alto." Leland Stanford's personal secretary recalled that he first proposed technical programs with practical purposes such as training skilled mechanics. Happily, the Stanfords' project soon evolved into a scheme for a broader institution, a university that would admit women as well as men and teach the arts and sciences as well as engineering. (Nevertheless, the university has always had a strong technical and engineering component, even before Frederick Terman, a Stanford dean, encouraged his students Bill Hewlett and David Packard to go into business and started the school's partnerships with technology firms at Stanford Research Park. Nowadays 17 percent of the university's undergraduates and 38 percent of its graduate students specialize in engineering.)

The grieving parents toured great universities, hired faculty, and built on their 7,000-acre racehorse farm in Palo Alto dormitories, a grand church, a museum of their son's antiques, and a quadrangle of classrooms and offices. They deeded to the school 78,540 acres of California land (on which they and their son were later buried) and opened the place October 1, 1891, with 555 students and a promised endowment much larger than was Harvard's at the time.

Less than two years later, Leland Sr. himself died suddenly, leaving Jane Stanford his principal heir and executor. She inherited a monumental battle as well. The Treasury was now seeking repayment from Stanford's estate on \$30 million in U.S. government bonds. Paying this debt would have undermined the school's finances.

In the early 1860s, the federal government had given Stanford and his three railroad-building partners the right to sell bonds on which the government would pay interest to the bondholders; all they had to do in return — besides laying thousands of miles of track — was pay back the principal and simple interest within thirty years. To say this was a good deal is like saying the Pacific Ocean is a large pond: they got to own the railroad, the land underneath it that had been public land, the checkerboard of alternating parcels of land on either side of the railroad right-of-way (12,800 acres per mile of track), and all the profits therefrom — in other words, they got the chance to turn California itself into, essentially, a monopoly run for their benefit. They set about making a good deal even better by overpaying subcontractors that they happened to own, commissioning surveys that deemed flat land mountainous (high government construction subsidies), and buying votes to tip local, state, and federal administrations their way. One of the partners, Mark Hopkins, burned the books.

Stanford's brother Philip is said to have gone around handing out five-dollar gold pieces to San Francisco voters during an 1863 referendum on railroad investment; Stanford himself was, conveniently, governor of California at the time, and so in 1863 California also gave \$15 million in state bonds to the railroad. In *The Big Four*, a history of Stanford and his three business partners, Oscar Lewis wrote, "from the middle '70s to 1910 the major share of the profit of virtually every business and industry on the Coast was diverted from its normal channel into the hands of the railroad and its controlling group." Or, into the tentacles. There was no alternative to their transit networks, just as there is nowadays, for example, virtually no alternative to Google's vast and spreading information networks.

Of the four who had profited so outrageously, only the monopoly's wily finance man, Collis P. Huntington, was still living when the bonds came due. He went to war against timely repayment. It was a pitched and highly public battle that brought forth further public animosity toward the railroad empire. Jane Stanford also fought back against the government, which was demanding \$15 million from her husband's \$20 million estate. She took the case to the Supreme Court and went to Washington, D.C., herself to ask President Grover Cleveland to intervene. He did, she won, and the rest is tech history.

Stanford (where, I should mention, I had a research fellowship last year) has its own internal critics, from the scholar Richard White, whose scathing history *Railroaded* won the Los Angeles Times Book Prize, to the communication professor Fred Turner, whose account of the Internet's genesis is not much sunnier. The university is less dicey in its foundational funding than its Ivy League peers tainted

by slavery, but it is also the most formidable institution that the Southern Pacific gave us, and the resemblance between that Victorian octopus and those of our own days, between the old robber barons and our sparkly new billionaires, can be striking.

White writes in *Railroaded* that he came to Silicon Valley

in the midst of the dot.com boom at a time when very many people were becoming very rich by creating companies, or owning the securities of companies, that lost vast amounts of money. . . . Eventually, I came to think of these new millionaires as descendants of men like Leland Stanford and his Associates. They had garnered large fortunes from heavily indebted corporations in ways that would not bear much looking into.

Part of the point of White's monumental history is that the old railroad barons grew rich even when they created chaotic, dysfunctional corporations that ill served the public. They didn't have to benefit us to benefit themselves.

San Francisco-based Twitter went public last year, creating 1,600 employee-millionaires overnight, many of whom sold their stock as soon as they could. Twitter also benefited from a payroll-tax break worth \$56 million, which the mayor of San Francisco gave the company under threat that it would decamp if it had to pay what ordinary businesses do. That mayor, Ed Lee, is in thrall to the tech industry and to his principal campaign donor, the billionaire Ron Conway (who was an early investor in Google, Facebook, Twitter, Airbnb, and many more Internet companies).

In the Southern Pacific era, politicians were bought directly, even if taking kickbacks was illegal and considered immoral; now candidates are openly for sale via campaign donations and lobbying. Google spent more money on lobbying the federal government in 2012 than any other corporation except General Electric, and it still has one of the largest lobbies in the country.

Google, Facebook, and Apple use offshore shell games to largely avoid paying taxes, while the billionaire former PayPal CEO Peter Thiel co-founded (with none other than Milton Friedman's grandson) a nonprofit pursuing the pipe dream of building artificial islands to which individuals and businesses can relocate to be free of regulations and taxes. "If we can solve the engineering challenges of Seasteading," Patri Friedman explained to *n+1*, "two-thirds of the Earth's surface becomes open for these political start-ups." Another billionaire, the venture capitalist Tim Draper, is funding a ballot initiative to divide California into six states, one of which would comprise the whole Bay Area under the name Silicon Valley. Secession from the

United States, rather than retreat to Friedman's proposed islands, has also been a popular idea. A Stanford lecturer/startup maven named Balaji Srinivasan gave a talk last year entitled "Silicon Valley's Ultimate Exit," in which he proposed showing what "a society run by Silicon Valley looks like without affecting anyone who still believes the Paper Belt is actually good."

"The Paper Belt" is his sneering expression for everything that came before about 1994 and isn't run by the tech industry. The pervasive fantasy that Silicon Valley doesn't need the government obscures the role of that government in funding much of the research that built it. The Internet itself, of course, was developed by the Department of Defense, and Silicon Valley is still key to the military and vice versa. The Office of Technology Licensing at Stanford estimates that the U.S. government funds 85 percent of research at the university, though the OTL insists the government is in turn a "significant beneficiary" of this research.

One beneficial invention the OTL recently licensed was "optimization software used in the design of yachts for the America Cup [sic]." That would be the America's Cup, which Larry Ellison's crew won in San Francisco Bay last year, overcoming the setback of being caught cheating to defeat the incongruously named Team Emirates New Zealand. Ellison soaked San Francisco with an \$11.5 million bill for the spectacle.

Ellison has Leland Stanford's love of extravagance and Collis P. Huntington's cunning. Octopus Holdings LP is the official owner of his estate in Woodside, the billionaires' hamlet a little ways from Stanford University in the heart of Silicon Valley. The home, a sort of theme park modeled after a Japanese imperial residence, was assessed at \$166 million in 2005, but Ellison or his Octopus appealed and got a \$3 million tax refund on the grounds that the house, built between 1995 and 2004, was obsolete and that its value had dropped \$101 million. The refund came straight out of the San Mateo County budget, and half of it would have gone to public schools.

This outcome calls to mind another court ruling on the San Francisco Peninsula, better known because it still shapes our lives. The squabble, which took place in 1886, was between Santa Clara County and the Southern Pacific Railroad. The county (in which most of Silicon Valley is now situated; the rest is in San Mateo) wanted \$13,366.53 in taxes on the company's property. California law allowed individuals but not corporations to deduct their mortgages and debts from their taxable property's value. But the judge — a friend of the Southern Pacific — found that the "defendant Corporations are persons within the intent of the . . . Four-

teenth Amendment.” And so it was that an amendment that had recently given ex-slaves the rights of human beings was said to have given corporations the same rights, which meant the fact that the railroad hadn’t paid back its government loans saved it a bundle on local taxes, and which brings us almost up to the Supreme Court’s 2010 Citizens United decision and other fruit of corporate personhood . . . But let’s stay, as the old railroad metaphor has it, on track.

There are other ways in which the tycoons of the nineteenth century resemble those of the twenty-first. Stanford’s partner Charles Crocker undercut the cost of labor by hiring Chinese immigrants en masse; Facebook CEO Mark Zuckerberg founded FWD.us to push immigration-law changes that would make it easier for Asian engineers to come to the United States. As many observers have noted, the primary attraction of foreign workers is not that they make up for a shortage in high-skill domestic workers — a shortage for which there is no evidence — but that they accept lower wages. When Huntington was grilled about his company’s finances, he said he couldn’t recall, had forgotten, was confused, as did the billionaire venture capitalist (and Sun Microsystems co-founder) Vinod Khosla this spring while being grilled about why he’d shut off all access to a public beach.

Technology was supposed to bring us forward — remember Bill Clinton’s “bridge to the twenty-first century” slogan and all the heady utopian promises about democracy and egalitarianism and a voice for everyone and economic magic and everything being free as in terms of liberty as well as in price? Fourteen years into that century, it looks a lot like the nineteenth. The economic divide has widened, and the ostentatiousness of the ultra-elite is a sneer at the rising desperation of most of the rest of the human beings on earth. Democracy in the United States has been undermined by corporate power, and that loss is augmented by the loss of privacy inflicted on us by the surveillance state with help from the tech sector. Amazon is intent on bringing the publishing industry to its knees; journalism, the great watchdog of the nineteenth century, has been bled almost to death by the Internet.

But there’s one cheerful thing to remember about the old octopuses, the Southern Pacific and Standard Oil. They arose in new resource landscapes, more or less completely unregulated. They helped create the obscene economic disparity of the age, and they helped stir up the ire of working people. What followed on the Gilded Age was the age of progressivism, the age that broke up the monopolies, regulated industry, and articulated a fierce vision of economic justice and rights for workers. We need to hope that we’re coming to that ourselves, or despair that we’ve become virtual serfs.

# THE DISRUPTION MACHINE

*From the June 23, 2014 issue of The New Yorker*

In the last years of the nineteen-eighties, I worked not at startups but at what might be called finish-downs. Tech companies that were dying would hire temps—college students and new graduates—to do what little was left of the work of the employees they'd laid off. This was in Cambridge, near M.I.T. I'd type users' manuals, save them onto 5.25-inch floppy disks, and send them to a line printer that yammered like a set of prank-shop chatter teeth, but, by the time the last perforated page coiled out of it, the equipment whose functions those manuals explained had been discontinued. We'd work a month here, a week there. There wasn't much to do. Mainly, we sat at our desks and wrote wishy-washy poems on keyboards manufactured by Digital Equipment Corporation, left one another sly messages on pink While You Were Out sticky notes, swapped paperback novels—Kurt Vonnegut, Margaret Atwood, Gabriel García Márquez, that kind of thing—and, during lunch hour, had assignations in empty, unlocked offices. At Polaroid, I once found a Bantam Books edition of "Steppenwolf" in a clogged sink in an employees' bathroom, floating like a raft. "In his heart he was not a man, but a wolf of the steppes," it said on the bloated cover. The rest was unreadable.

Not long after that, I got a better assignment: answering the phone for Michael Porter, a professor at the Harvard Business School. I was an assistant to his assistant. In 1985, Porter had published a book called "Competitive Advantage," in which he elaborated on the three strategies—cost leadership, differentiation, and focus—that he'd described in his 1980 book, "Competitive Strategy." I almost never saw Porter, and, when I did, he was dashing, affably, out the door, suitcase in hand. My job was to field inquiries from companies that wanted to book him for speaking engagements. "The Competitive Advantage of Nations" appeared in 1990. Porter's ideas about business strategy reached executives all over the world.

Porter was interested in how companies succeed. The scholar who in some respects became his successor, Clayton M. Christensen, entered a doctoral program at the Harvard Business School in 1989 and joined the faculty in 1992. Christensen was interested in why companies fail. In his 1997 book, "The Innovator's Dilemma," he argued that, very often, it isn't because their executives made bad decisions but because they made good decisions, the same kind of

good decisions that had made those companies successful for decades. (The “innovator’s dilemma” is that “doing the right thing is the wrong thing.”) As Christensen saw it, the problem was the velocity of history, and it wasn’t so much a problem as a missed opportunity, like a plane that takes off without you, except that you didn’t even know there was a plane, and had wandered onto the airfield, which you thought was a meadow, and the plane ran you over during takeoff. Manufacturers of mainframe computers made good decisions about making and selling mainframe computers and devising important refinements to them in their R. & D. departments—“sustaining

innovations,” Christensen called them—but, busy pleasing their mainframe customers, one tinker at a time, they missed what an entirely untapped customer wanted, personal computers, the market for which was created by what Christensen called “disruptive innovation”: the selling of a cheaper, poorer-quality product that initially reaches less profitable customers but eventually takes over and devours an entire industry.

Ever since “The Innovator’s Dilemma,” everyone is either disrupting or being disrupted. There are disruption consultants, disruption conferences, and disruption seminars. This fall, the University of Southern California is opening a new program: “The degree is in disruption,” the university announced. “Disrupt or be disrupted,” the venture capitalist Josh Linkner warns in a new book, “The Road to Reinvention,” in which he argues that “fickle consumer trends, friction-free markets, and political unrest,” along with “dizzying speed, exponential complexity, and mind-numbing technology advances,” mean that the time has come to panic as you’ve never panicked before. Larry Downes and Paul Nunes, who blog for Forbes, insist that we have entered a new and even scarier stage: “big bang disruption.” “This isn’t disruptive innovation,” they warn. “It’s devastating innovation.”

Things you own or use that are now considered to be the product of disruptive innovation include your smartphone and many of its apps, which have disrupted businesses from travel agencies and record stores to mapmaking and taxi dispatch. Much more disruption, we are told, lies ahead. Christensen has co-written books urging disruptive innovation in higher education (“The Innovative University”), public schools (“Disrupting Class”), and health care (“The Innovator’s Prescription”). His acolytes and imitators, including no small number of hucksters, have called for the disruption of more or less everything else. If the company you work for has a chief innovation officer, it’s because of the long arm of “The Innovator’s Dilemma.” If your city’s

public-school district has adopted an Innovation Agenda, which has disrupted the education of every kid in the city, you live in the shadow of “The Innovator’s Dilemma.” If you saw the episode of the HBO sitcom “Silicon Valley” in which the characters attend a conference called TechCrunch Disrupt 2014 (which is a real thing), and a guy from the stage, a Paul Rudd look-alike, shouts, “Let me hear it, DISSS- RUPPTTT!,” you have heard the voice of Clay Christensen, echoing across the valley.

Last month, days after the Times’ publisher, Arthur Sulzberger, Jr., fired Jill Abramson, the paper’s executive editor, the Times’ 2014 Innovation Report was leaked. It includes graphs inspired by Christensen’s “Innovator’s Dilemma,” along with a lengthy, glowing summary of the book’s key arguments. The report explains, “Disruption is a predictable pattern across many industries in which fledgling companies use new technology to offer cheaper and inferior alternatives to products sold by established players (think Toyota taking on Detroit decades ago). Today, a pack of news startups are hoping to ‘disrupt’ our industry by attacking the strongest incumbent —The New York Times.”

A pack of attacking startups sounds something like a pack of ravenous hyenas, but, generally, the rhetoric of disruption—a language of panic, fear, asymmetry, and disorder—calls on the rhetoric of another kind of conflict, in which an upstart refuses to play by the established rules of engagement, and blows things up. Don’t think of Toyota taking on Detroit. Startups are ruthless and leaderless and unrestrained, and they seem so tiny and powerless, until you realize, but only after it’s too late, that they’re devastatingly dangerous: Bang! Ka-boom! Think of it this way: the Times is a nation-state; BuzzFeed is stateless. Disruptive innovation is competitive strategy for an age seized by terror.

Every age has a theory of rising and falling, of growth and decay, of bloom and wilt: a theory of nature. Every age also has a theory about the past and the present, of what was and what is, a notion of time: a theory of history. Theories of history used to be supernatural: the divine ruled time; the hand of God, a special providence, lay behind the fall of each sparrow. If the present differed from the past, it was usually worse: supernatural theories of history tend to involve decline, a fall from grace, the loss of God’s favor, corruption. Beginning in the eighteenth century, as the intellectual historian Dorothy Ross once pointed out, theories of history became secular; then they started something new—historicism, the idea “that all events in historical time can be explained by prior events in historical time.” Things began looking up. First, there was that, then there was this, and this is better than that. The eighteenth century embraced the idea of progress; the nineteenth century had evolution; the twentieth century had

growth and then innovation. Our era has disruption, which, despite its futurism, is atavistic. It's a theory of history founded on a profound anxiety about financial collapse, an apocalyptic fear of global devastation, and shaky evidence.

Most big ideas have loud critics. Not disruption. Disruptive innovation as the explanation for how change happens has been subject to little serious criticism, partly because it's headlong, while critical inquiry is unhurried; partly because disrupters ridicule doubters by charging them with foggyism, as if to criticize a theory of change were identical to decrying change; and partly because, in its modern usage, innovation is the idea of progress jammed into a criticism-proof jack-in-the-box.

The idea of progress—the notion that human history is the history of human betterment—dominated the world view of the West between the Enlightenment and the First World War. It had critics from the start, and, in the last century, even people who cherish the idea of progress, and point to improvements like the eradication of contagious diseases and the education of girls, have been hard-pressed to hold on to it while reckoning with two World Wars, the Holocaust and Hiroshima, genocide and global warming. Replacing “progress” with “innovation” skirts the question of whether a novelty is an improvement: the world may not be getting better and better but our devices are getting newer and newer.

The word “innovate”—to make new—used to have chiefly negative connotations: it signified excessive novelty, without purpose or end. Edmund Burke called the French Revolution a “revolt of innovation”; Federalists declared themselves to be “enemies to innovation.” George Washington, on his deathbed, was said to have uttered these words: “Beware of innovation in politics.” Noah Webster warned in his dictionary, in 1828, “It is often dangerous to innovate on the customs of a nation.”

The redemption of innovation began in 1939, when the economist Joseph Schumpeter, in his landmark study of business cycles, used the word to mean bringing new products to market, a usage that spread slowly, and only in the specialized literatures of economics and business. (In 1942, Schumpeter theorized about “creative destruction”; Christensen, retrofitting, believes that Schumpeter was really describing disruptive innovation.) “Innovation” began to seep beyond specialized literatures in the nineteen-nineties, and gained ubiquity only after 9/11. One measure: between 2011 and 2014, Time, the Times Magazine, The New Yorker, Forbes, and even Better Homes and Gardens published special “innovation” issues—the modern equivalents of what, a century ago, were known

as “sketches of men of progress.”

The idea of innovation is the idea of progress stripped of the aspirations of the Enlightenment, scrubbed clean of the horrors of the twentieth century, and relieved of its critics. Disruptive innovation goes further, holding out the hope of salvation against the very damnation it describes: disrupt, and you will be saved.

Disruptive innovation as a theory of change is meant to serve both as a chronicle of the past (this has happened) and as a model for the future (it will keep happening). The strength of a prediction made from a model depends on the quality of the historical evidence and on the reliability of the methods used to gather and interpret it. Historical analysis proceeds from certain conditions regarding proof. None of these conditions have been met.

“Home is the place where, when you go there, they have to take you in—unless they’ve moved to a one-bedroom condo in Boca Raton.”

“The Innovator’s Dilemma” consists of a set of handpicked case studies, beginning with the disk-drive industry, which was the subject of Christensen’s doctoral thesis, in 1992. “Nowhere in the history of business has there been an industry like disk drives,” Christensen writes, which makes it a very odd choice for an investigation designed to create a model for understanding other industries. The first hard-disk drive, which weighed more than a ton, was invented at I.B.M., in 1955, by a team that included Alan Shugart. Christensen is chiefly concerned with an era, beginning in the late nineteen-seventies, when disk drives decreased in size from fourteen inches to eight, then from eight to 5.25, from 5.25 to 3.5, and from 3.5 to 2.5 and 1.8. He counts a hundred and sixteen new technologies, and classes a hundred and eleven as sustaining innovations and five as disruptive innovations. Each of these five, he says, introduced “smaller disk drives that were slower and had lower capacity than those used in the mainstream market,” and each company that adopted them was an entrant firm that toppled an established firm. In 1973, Alan Shugart founded Shugart Associates, which introduced a 5.25-inch floppy-disk drive in 1976; the company was bought by Xerox the next year. In 1978, Shugart Associates developed an eight-inch hard-disk drive; Christensen, who is uninterested in the floppy-disk-drive industry, classes the company as an entrant firm and credits it with disrupting established firms that manufactured fourteen-inch hard drives. In 1979, Alan Shugart founded Shugart Technology, which changed its name to Seagate Technology after Xerox threatened to sue. In 1980, Seagate Technology introduced the first 5.25-inch hard-disk drive; Christensen, at this point, classes Seagate as an entrant firm, and Shugart Associates as a failed incumbent, even though

Shugart Associates was shifting its focus to what was then its very profitable floppy-disk-drive business. In the mid-eighties, Seagate—here considered by Christensen to be an established firm—delayed manufacturing 3.5-inch drives, which were valued by producers of portable computers and laptops, because its biggest customer, I.B.M., didn't want them; I.B.M. wanted a better and faster version of the 5.25-inch drive for its full-sized desktop computers. Seagate didn't start shipping 3.5-inch drives until 1988, and by then, Christensen argues, it was too late.

In his original research, Christensen established the cutoff for measuring a company's success or failure as 1989 and explained that " 'successful firms' were arbitrarily defined as those which achieved more than fifty million dollars in revenues in constant 1987 dollars in any single year between 1977 and 1989—even if they subsequently withdrew from the market." Much of the theory of disruptive innovation rests on this arbitrary definition of success.

In fact, Seagate Technology was not felled by disruption. Between 1989 and 1990, its sales doubled, reaching \$2.4 billion, "more than all of its U.S. competitors combined," according to an industry report. In 1997, the year Christensen published "The Innovator's Dilemma," Seagate was the largest company in the disk-drive industry, reporting revenues of nine billion dollars. Last year, Seagate shipped its two-billionth disk drive. Most of the entrant firms celebrated by Christensen as triumphant disrupters, on the other hand, no longer exist, their success having been in some cases brief and in others illusory. (The fleeting nature of their success is, of course, perfectly consistent with his model.) Between 1982 and 1984, Micropolis made the disruptive leap from eight-inch to 5.25-inch drives through what Christensen credits as the "Herculean managerial effort" of its C.E.O., Stuart Mahon. ("Mahon remembers the experience as the most exhausting of his life," Christensen writes.) But, shortly thereafter, Micropolis, unable to compete with companies like Seagate, failed. MiniScribe, founded in 1980, started out selling 5.25-inch drives and saw quick success. "That was MiniScribe's hour of glory," the company's founder later said. "We had our hour of infamy shortly after that." In 1989, MiniScribe was investigated for fraud and soon collapsed; a report charged that the company's practices included fabricated financial reports and "shipping bricks and scrap parts disguised as disk drives."

As striking as the disruption in the disk-drive industry seemed in the nineteen-eighties, more striking, from the vantage of history, are the continuities. Christensen argues that incumbents in the disk-drive industry were regularly destroyed by newcomers. But today, after much consolidation, the divisions that

dominate the industry are divisions that led the market in the nineteen-eighties. (In some instances, what shifted was their ownership: I.B.M. sold its hard-disk division to Hitachi, which later sold its division to Western Digital.) In the longer term, victory in the disk-drive industry appears to have gone to the manufacturers that were good at incremental improvements, whether or not they were the first to market the disruptive new format. Companies that were quick to release a new product but not skilled at tinkering have tended to flame out.

Other cases in “The Innovator’s Dilemma” are equally murky. In his account of the mechanical-excavator industry, Christensen argues that established companies that built cable-operated excavators were slow to recognize the importance of the hydraulic excavator, which was developed in the late nineteen-forties. “Almost the entire population of mechanical shovel manufacturers was wiped out by a disruptive technology—hydraulics—that the leaders’ customers and their economic structure had caused them initially to ignore,” he argues. Christensen counts thirty established companies in the nineteen-fifties and says that, by the nineteen-seventies, only four had survived the entrance into the industry of thirteen disruptive newcomers, including Caterpillar, O. & K., Demag, and Hitachi. But, in fact, many of Christensen’s “new entrants” had been making cable-operated shovels for years. O. & K., founded in 1876, had been making them since 1908; Demag had been building excavators since 1925, when it bought a company that built steam shovels; Hitachi, founded in 1910, sold cable-operated shovels before the Second World War. Manufacturers that were genuinely new to excavation equipment tended to sell a lot of hydraulic excavators, if they had a strong distribution network, and then not do so well. And some established companies disrupted by hydraulics didn’t do half as badly as Christensen suggests. Bucyrus is the old-line shovel-maker he writes about most. It got its start in Ohio, in 1880, built most of the excavators that dug the Panama Canal, and became Bucyrus-Erie in 1927, when it bought the Erie Steam Shovel Company. It acquired a hydraulics-equipment firm in 1948, but, Christensen writes, “faced precisely the same problem in marketing its hydraulic backhoe as Seagate had faced with its 3.5-inch drives.”

Unable to persuade its established consumers to buy a hydraulic excavator, Bucyrus introduced a hybrid product, called the Hydrohoe, in 1951—a merely sustaining innovation. Christensen says that Bucyrus “logged record profits until 1966—the point at which the disruptive hydraulics technology had squarely intersected with customers’ needs,” and then began to decline. “This is typical of industries facing a disruptive technology,” he explains. “The leading firms in the established technology remain financially strong until the disruptive technology

is, in fact, in the midst of their mainstream market.”

But, actually, between 1962 and 1979 Bucyrus’s sales grew sevenfold and its profits grew twenty-five-fold. Was that so bad? In the nineteen-eighties, Bucyrus suffered. The whole construction- equipment industry did: it was devastated by recession, inflation, the oil crisis, a drop in home building, and the slowing of highway construction. (Caterpillar sustained heavy losses, too.) In the early nineteen-nineties, after a disastrous leveraged buyout handled by Goldman Sachs, Bucyrus entered Chapter 11 protection, but it made some sizable acquisitions when it emerged, as Bucyrus International, and was a leading maker of mining equipment, just as it had been a century earlier. Was it a failure? Caterpillar didn’t think so when, in 2011, it bought the firm for nearly nine billion dollars.

Christensen’s sources are often dubious and his logic questionable. His single citation for his investigation of the “disruptive transition from mechanical to electronic motor controls,” in which he identifies the Allen-Bradley Company as triumphing over four rivals, is a book called “The Bradley Legacy,” an account published by a foundation established by the company’s founders. This is akin to calling an actor the greatest talent in a generation after interviewing his publicist. “Use theory to help guide data collection,” Christensen advises.

He finds further evidence of his theory in the disruption of the department store by the discount store. “Just as in disk drives and excavators,” he writes, “a few of the leading traditional retailers— notably S. S. Kresge, F. W. Woolworth, and Dayton Hudson—saw the disruptive approach coming and invested early.” In 1962, Kresge (which traces its origins to 1897) opened Kmart; Dayton-Hudson (1902) opened Target; and Woolworth (1879) opened Woolco. Kresge and Dayton-Hudson ran their discount stores as independent organizations; Woolworth ran its discount store in-house. Kmart and Target succeeded; Woolco failed. Christensen presents this story as yet more evidence of an axiom derived from the disk-drive industry: “two models for how to make money cannot peacefully coexist within a single organization.” In the mid-nineteen-nineties, Kmart closed more than two hundred stores, a fact that Christensen does not include in his account of the industry’s history. (Kmart filed for bankruptcy in 2002.) Only in a footnote does he make a vague allusion to Kmart’s troubles—“when this book was being written, Kmart was a crippled company”—and then he dismisses this piece of counter-evidence by fiat: “Kmart’s present competitive struggles are unrelated to Kresge’s strategy in meeting the original disruptive threat of discounting.”

In his discussion of the steel industry, in which he argues that established companies were disrupted by the technology of minimilling (melting down scrap metal to make cheaper, lower-quality sheet metal), Christensen writes that U.S. Steel, founded in 1901, lowered the cost of steel production from “nine labor-hours per ton of steel produced in 1980 to just under three hours per ton in 1991,” which he attributes to the company’s “ferociously attacking the size of its workforce, paring it from more than 93,000 in 1980 to fewer than 23,000 in 1991,” in order to point out that even this accomplishment could not stop the coming disruption. Christensen tends to ignore factors that don’t support his theory. Factors having effects on both production and profitability that Christensen does not mention are that, between 1986 and 1987, twenty-two thousand workers at U.S. Steel did not go to work, as part of a labor action, and that U.S. Steel’s workers are unionized and have been for generations, while minimill manufacturers, with their newer workforces, are generally non-union. Christensen’s logic here seems to be that the industry’s labor arrangements can have played no role in U.S. Steel’s struggles—and are not even worth mentioning—because U.S. Steel’s struggles must be a function of its having failed to build minimills. U.S. Steel’s struggles have been and remain grave, but its failure is by no means a matter of historical record. Today, the largest U.S. producer of steel is—U.S. Steel.

The theory of disruption is meant to be predictive. On March 10, 2000, Christensen launched a \$3.8-million Disruptive Growth Fund, which he managed with Neil Eisner, a broker in St. Louis. Christensen drew on his theory to select stocks. Less than a year later, the fund was quietly liquidated: during a stretch of time when the Nasdaq lost fifty per cent of its value, the Disruptive Growth Fund lost sixty-four per cent. In 2007, Christensen told *Business Week* that “the prediction of the theory would be that Apple won’t succeed with the iPhone,” adding, “History speaks pretty loudly on that.” In its first five years, the iPhone generated a hundred and fifty billion dollars of revenue. In the preface to the 2011 edition of “*The Innovator’s Dilemma*,” Christensen reports that, since the book’s publication, in 1997, “the theory of disruption continues to yield predictions that are quite accurate.” This is less because people have used his model to make accurate predictions about things that haven’t happened yet than because disruption has been sold as advice, and because much that happened between 1997 and 2011 looks, in retrospect, disruptive. Disruptive innovation can reliably be seen only after the fact. History speaks loudly, apparently, only when you can make it say what you want it to say. The popular incarnation of the theory tends to disavow history altogether. “Predicting the future based on the past is like betting on a

football team simply because it won the Super Bowl a decade ago,” Josh Linkner writes in “The Road to Reinvention.” His first principle: “Let go of the past.” It has nothing to tell you. But, unless you already believe in disruption, many of the successes that have been labelled disruptive innovation look like something else, and many of the failures that are often seen to have resulted from failing to embrace disruptive innovation look like bad management.

Christensen has compared the theory of disruptive innovation to a theory of nature: the theory of evolution. But among the many differences between disruption and evolution is that the advocates of disruption have an affinity for circular arguments. If an established company doesn’t disrupt, it will fail, and if it fails it must be because it didn’t disrupt. When a startup fails, that’s a success, since epidemic failure is a hallmark of disruptive innovation. (“Stop being afraid of failure and start embracing it,” the organizers of FailCon, an annual conference, implore, suggesting that, in the era of disruption, innovators face unprecedented challenges. For instance: maybe you made the wrong hires?) When an established company succeeds, that’s only because it hasn’t yet failed. And, when any of these things happen, all of them are only further evidence of disruption.

“I’m writing a memoir. It’s mostly recipes.”

The handpicked case study, which is Christensen’s method, is a notoriously weak foundation on which to build a theory. But, if the handpicked case study is the approved approach, it would seem that efforts at embracing disruptive innovation are often fatal. Morrison-Knudsen, an engineering and construction firm, got its start in 1905 and helped build more than a hundred and fifty dams all over the world, including the Hoover. Beginning in 1988, a new C.E.O., William Agee, looked to new products and new markets, and, after Bill Clinton’s election, in 1992, bet on mass transit, turning to the construction of both commuter and long-distance train cars through two subsidiaries, MK Transit and MK Rail. These disruptive businesses proved to be a disaster. Morrison-Knudsen announced in 1995 that it had lost three hundred and fifty million dollars, by which point the company had essentially collapsed—not because it didn’t disruptively innovate but because it did. Time, Inc., founded in 1922, auto-disrupted, too. In 1994, the company launched Pathfinder, an early new-media venture, an umbrella Web site for its magazines, at a cost estimated to have exceeded a hundred million dollars; the site was abandoned in 1999. Had Pathfinder been successful, it would have been greeted, retrospectively, as evidence of disruptive innovation. Instead, as one of its producers put it, “it’s like it never existed.”

In the late nineteen-nineties and early two-thousands, the financial- services

industry innovated by selling products like subprime mortgages, collateralized debt obligations, and mortgage-backed securities, some to a previously untapped customer base. At the time, Ed Clark was the C.E.O. of Canada's TD Bank, which traces its roots to 1855. Clark, who earned a Ph.D. in economics at Harvard with a dissertation on public investment in Tanzania, forswore Canada's version of this disruptive innovation, asset-backed commercial paper. The decision made TD Bank one of the strongest banks in the world. Between 2002 and 2012, TD Bank's assets increased from \$278 billion to \$806 billion. Since 2005, TD Bank has opened thirteen hundred branches in the United States, bought Commerce Bank for \$8.5 billion, in 2008, and adopted the motto "America's Most Convenient Bank." With the money it earned by expanding its traditional banking services—almost four billion dollars a year during the height of the financial crisis, according to the Canadian business reporter Howard Green—it set about marketing itself as the bank with the longest hours, the best teller services, and free dog biscuits.

When the financial-services industry disruptively innovated, it led to a global financial crisis. Like the bursting of the dot-com bubble, the meltdown didn't dim the fervor for disruption; instead, it fuelled it, because these products of disruption contributed to the panic on which the theory of disruption thrives.

Disruptive innovation as an explanation for how change happens is everywhere. Ideas that come from business schools are exceptionally well marketed. Faith in disruption is the best illustration, and the worst case, of a larger historical transformation having to do with secularization, and what happens when the invisible hand replaces the hand of God as explanation and justification. Innovation and disruption are ideas that originated in the arena of business but which have since been applied to arenas whose values and goals are remote from the values and goals of business. People aren't disk drives. Public schools, colleges and universities, churches, museums, and many hospitals, all of which have been subjected to disruptive innovation, have revenues and expenses and infrastructures, but they aren't industries in the same way that manufacturers of hard-disk drives or truck engines or drygoods are industries. Journalism isn't an industry in that sense, either.

Doctors have obligations to their patients, teachers to their students, pastors to their congregations, curators to the public, and journalists to their readers—obligations that lie outside the realm of earnings, and are fundamentally different from the obligations that a business executive has to employees, partners, and investors. Historically, institutions like museums, hospitals, schools, and universities have been supported by patronage, donations made by individuals

or funding from church or state. The press has generally supported itself by charging subscribers and selling advertising. (Underwriting by corporations and foundations is a funding source of more recent vintage.) Charging for admission, membership, subscriptions and, for some, earning profits are similarities these institutions have with businesses. Still, that doesn't make them industries, which turn things into commodities and sell them for gain.

In "The Innovative University," written with Henry J. Eyring, who used to work at the Monitor Group, a consulting firm co-founded by Michael Porter, Christensen subjected Harvard, a college founded by seventeenth-century theocrats, to his case-study analysis. "Studying the university's history," Christensen and Eyring wrote, "will allow us to move beyond the forlorn language of crisis to hopeful and practical strategies for success." On the basis of this research, Christensen and Eyring's recommendations for the disruption of the modern university include a "mix of face-to-face and online learning." The publication of "The Innovative University," in 2011, contributed to a frenzy for Massive Open Online Courses, or MOOCs, at colleges and universities across the country, including a collaboration between Harvard and M.I.T., which was announced in May of 2012. Shortly afterward, the University of Virginia's panicked board of trustees attempted to fire the president, charging her with jeopardizing the institution's future by failing to disruptively innovate with sufficient speed; the vice-chair of the board forwarded to the chair a Times column written by David Brooks, "The Campus Tsunami," in which he cited Christensen.

Christensen and Eyring's recommendation of a "mix of face-to-face and online learning" was drawn from an investigation that involves a wildly misguided attempt to apply standards of instruction in the twenty-first century to standards of instruction in the seventeenth. One table in the book, titled "Harvard's Initial DNA, 1636-1707," looks like this:

**Initial Traits**

Small, face-to-face classes  
Classical, religious instruction  
Nonspecialized faculty

**Implications**

High faculty-student intimacy  
Low instructional efficiency  
High moral content in the curriculum  
Narrow curriculum with low practicality for non-pastors  
Dogmatic instruction  
High faculty empathy for learners  
Low faculty expertise

In 2014, there were twenty-one thousand students at Harvard. In 1640, there were thirteen. The first year classes were held, Harvard students and their “nonspecialized faculty” (one young schoolmaster, Nathaniel Eaton), enjoying “small, face-to-face classes” (Eaton’s wife, who fed the students, was accused of putting “goat’s dung in their hasty pudding”) with “high faculty empathy for learners” (Eaton conducted thrashings with a stick of walnut said to have been “big enough to have killed a horse”), could have paddled together in a single canoe. That doesn’t mean good arguments can’t be made for online education. But there’s nothing factually persuasive in this account of its historical urgency and even inevitability, which relies on a method well outside anything resembling plausible historical analysis.

Christensen and Eyring also urge universities to establish “heavyweight innovation teams”: Christensen thinks that R. & D. departments housed within a business and accountable to its executives are structurally unable to innovate disruptively—they are preoccupied with pleasing existing customers through incremental improvement. Christensen argues, for instance, that if Digital Equipment Corporation, which was doing very well making minicomputers in the nineteen-sixties and seventies, had founded, in the eighties, a separate company at another location to develop the personal computer, it might have triumphed. The logic of disruptive innovation is the logic of the startup: establish a team of innovators, set a whiteboard under a blue sky, and never ask them to make a profit, because there needs to be a wall of separation between the people whose job is to come up with the best, smartest, and most creative and important ideas and the people whose job is to make money by selling stuff. Interestingly, a similar principle has existed, for more than a century, in the press. The “heavyweight innovation team”? That’s what journalists used to call the “newsroom.”

It’s readily apparent that, in a democracy, the important business interests of institutions like the press might at times conflict with what became known as the “public interest.” That’s why, a very long time ago, newspapers like the Times and magazines like this one established a wall of separation between the editorial side of affairs and the business side. (The metaphor is to the Jeffersonian wall between church and state.) “The wall dividing the newsroom and business side has served The Times well for decades,” according to the Times’ Innovation Report, “allowing one side to focus on readers and the other to focus on advertisers,” as if this had been, all along, simply a matter of office efficiency. But the notion of a wall should be abandoned, according to the report, because it has “hidden costs” that thwart innovation. Earlier this year, the Times tried to recruit, as its new head of audience development, Michael Wertheim, the former head of promotion at the disruptive media outfit Upworthy. Wertheim turned the Times job down, citing its wall as

# Love is Love 2014

- 1 Is this Love - Bob Marley & the Wailers
- 2 Today - Jefferson Airplane
- 3 Something Big - Bust Bacharach
- 4 Somebody to Love - Valerie Jones
- 5 Crimson and Clover - Tommy James & the Shondelles
- 6 Easy - The Commodores
- 7 I can only give you everything - Nick Waterhouse
- 8 Baby Love - the Supremes
- 9 Compared to What - Roberta Flack
- 10 Tangled Up in Blue - KT Tunstall
- 11 Praise You - Fatboy Slim
- 12 Would that Not be Nice - Divine Fits
- 13 Will I Ever - Kitty & Daisy & Lewis
- 14 Love you Inside Out - Bae Gae S
- 15 Creep - Radiohead
- 16 Wild Thing - The Troggs
- 17 Let her Dance - Bobbie Fuller From
- 18 Lovetool - The Cardigans
- 19 That's My Desire - Elvis Presley
- 20 You and Me - Penny & the Quakers
- 21 My Funny Valentine - Anita O'Day
- 22 (Alternate Take) - Bill Evans
- 23 Ramble On - Led Zepplin

The first Haute Closet In Your Head mix of 2014.

too big an obstacle to disruptive innovation. The recommendation of the Innovation Report is to understand that both sides, editorial and business, share, as their top priority, “Reader Experience,” which can be measured, following Upworthy, in “Attention Minutes.” Vox Media, a digital-media disrupter that is mentioned ten times in the Times report and is included, along with BuzzFeed, in a list of the Times’ strongest competitors (few of which are profitable), called the report “brilliant,” “shockingly good,” and an “insanely clear” explanation of disruption, but expressed the view that there’s no way the Times will implement its recommendations, because “what the report doesn’t mention is the sobering conclusion of Christensen’s research: companies faced with disruptive threats almost never manage to handle them gracefully.”

Disruptive innovation is a theory about why businesses fail. It’s not more than that. It doesn’t explain change. It’s not a law of nature. It’s an artifact of history, an idea, forged in time; it’s the manufacture of a moment of upsetting and edgy uncertainty. Transfixed by change, it’s blind to continuity. It makes a very poor prophet.

The upstarts who work at startups don’t often stay at any one place for very long. (Three out of four startups fail. More than nine out of ten never earn a return.) They work a year here, a few months there—zany hours everywhere. They wear jeans and sneakers and ride scooters and share offices and sprawl on couches like Great Danes. Their coffee machines look like dollhouse-size factories.

They are told that they should be reckless and ruthless. Their investors, if they’re like Josh Linkner, tell them that the world is a terrifying place, moving at a devastating pace. “Today I run a venture capital firm and back the next generation of innovators who are, as I was throughout my earlier career, dead-focused on eating your lunch,” Linkner writes. His job appears to be to convince a generation of people who want to do good and do well to learn, instead, remorselessness. Forget rules, obligations, your conscience, loyalty, a sense of the commonweal. If you start a business and it succeeds, Linkner advises, sell it and take the cash. Don’t look back. Never pause. Disrupt or be disrupted.

But they do pause and they do look back, and they wonder. Meanwhile, they tweet, they post, they tumble in and out of love, they ponder. They send one another sly messages, touching the screens of sleek, soundless machines with a worshipful tenderness. They swap novels: David Foster Wallace, Chimamanda Ngozi Adichie, Zadie Smith. “Steppenwolf ” is still available in print, five dollars cheaper as an e-book. He’s a wolf, he’s a man. The rest is unreadable. So, as ever, is the future.

*From a list Kerouac wrote about being awesome and discovered in AnOther Magazine, Fall 2014.*

- 2 Submissive to everything, open, listening
- 7 Blow as deep as you want to blow
- 9 The unspeakable visions of the individual
- 12 In tranced fixation dreaming upon object  
before you
- 16 The jewel center of interest is the eye  
within the eye
- 19 Accept loss forever
- 20 Believe in the holy contour of life
- 23 Keep track of every day the date  
emblazoned in yr morning
- 25 Write for the world to read and see yr exact  
pictures of it
- 29 You're a Genius all the time

# DON'T DATE A GIRL WHO READS

*You Should Date an Illiterate Girl by Charles Warnke ... from the rich rich Internet*

Date a girl who doesn't read. Find her in the weary squalor of a Midwestern bar. Find her in the smoke, drunken sweat, and varicolored light of an upscale nightclub. Wherever you find her, find her smiling. Make sure that it lingers when the people that are talking to her look away. Engage her with unsentimental trivialities. Use pick-up lines and laugh inwardly.

Take her outside when the night overstays its welcome. Ignore the palpable weight of fatigue. Kiss her in the rain under the weak glow of a streetlamp because you've seen it in film. Remark at its lack of significance. Take her to your apartment. Dispatch with making love. Fuck her.

Let the anxious contract you've unwittingly written evolve slowly and uncomfortably into a relationship. Find shared interests and common ground like sushi, and folk music. Build an impenetrable bastion upon that ground. Make it sacred. Retreat into it every time the air gets stale, or the evenings get long. Talk about nothing of significance. Do little thinking. Let the months pass unnoticed. Ask her to move in. Let her decorate. Get into fights about inconsequential things like how the fucking shower curtain needs to be closed so that it doesn't fucking collect mold. Let a year pass unnoticed. Begin to notice.

Figure that you should probably get married because you will have wasted a lot of time otherwise. Take her to dinner on the forty-fifth floor at a restaurant far beyond your means. Make sure there is a beautiful view of the city. Sheepishly ask a waiter to bring her a glass of champagne with a modest ring in it. When she notices, propose to her with all of the enthusiasm and sincerity you can muster. Do not be overly concerned if you feel your heart leap through a pane of sheet glass. For that matter, do not be overly concerned if you cannot feel it at all. If there is applause, let it stagnate. If she cries, smile as if you've never been happier. If she doesn't, smile all the same.

Let the years pass unnoticed. Get a career, not a job. Buy a house. Have two striking children. Try to raise them well. Fail, frequently. Lapse into a bored indifference. Lapse into an indifferent sadness. Have a mid-life crisis. Grow old. Wonder at your lack of achievement. Feel sometimes contented, but mostly vacant and ethereal. Feel, during walks, as if you might never return, or as if you might blow away on the wind. Contract a terminal illness. Die, but only after you observe that the girl who didn't read never made your heart oscillate with any significant passion, that no

one will write the story of your lives, and that she will die, too, with only a mild and tempered regret that nothing ever came of her capacity to love.

Do those things, because nothing sucks worse than a girl who reads. Do it, I say, because a life in purgatory is better than a life in hell. Do it, because a girl who reads possesses a vocabulary that can describe that amorphous discontent as a life unfulfilled—a vocabulary that parses the innate beauty of the world and makes it an accessible necessity instead of an alien wonder. A girl who reads lays claim to a vocabulary that distinguishes between the specious and soulless rhetoric of someone who cannot love her, and the inarticulate desperation of someone who loves her too much. A vocabulary, god damnit, that makes my vacuous sophistry a cheap trick.

Do it, because a girl who reads understands syntax. Literature has taught her that moments of tenderness come in sporadic but knowable intervals. A girl who reads knows that life is not planar; she knows, and rightly demands, that the ebb comes along with the flow of disappointment. A girl who has read up on her syntax senses the irregular pauses—the hesitation of breath—endemic to a lie. A girl who reads perceives the difference between a parenthetical moment of anger and the entrenched habits of someone whose bitter cynicism will run on, run on well past any point of reason, or purpose, run on far after she has packed a suitcase and said a reluctant goodbye and she has decided that I am an ellipsis and not a period and run on and run on. Syntax that knows the rhythm and cadence of a life well lived.

Date a girl who doesn't read because the girl who reads knows the importance of plot. She can trace out the demarcations of a prologue and the sharp ridges of a climax. She feels them in her skin. The girl who reads will be patient with an intermission and expedite a denouement. But of all things, the girl who reads knows most the ineluctable significance of an end. She is comfortable with them. She has bid farewell to a thousand heroes with only a twinge of sadness.

Don't date a girl who reads because girls who read are the storytellers. You with the Joyce, you with the Nabokov, you with the Woolf. You there in the library, on the platform of the metro, you in the corner of the café, you in the window of your room. You, who make my life so god damned difficult. The girl who reads has spun out the account of her life and it is bursting with meaning. She insists that her narratives are rich, her supporting cast colorful, and her typeface bold. You, the girl who reads, make me want to be everything that I am not. But I am weak and I will fail you, because you have dreamed, properly, of someone who is better than I am. You will not accept the life that I told of at the beginning of this piece. You will accept nothing less than passion, and perfection, and a life worthy of being storied. So out with you, girl who reads.

# BEAUTIFUL GIRL

*Tobias Wolff, published in the June 9, 2014 issue of the New Yorker*

When I was fifteen, I cut off the last joint of my left ring finger during a woodshop class. I was laughing at a joke while cutting a board on a table saw. The bite of the blade sent a great shock through me, and I didn't dare look down, but the bleached faces of the other boys told me just how bad it was.

They didn't reassemble bodies in those days. Later, I heard that one of the guys in the class had picked up the joint, complete with dirty fingernail, and scared some girls with it. No surprise, no hard feelings; it was the kind of thing I would've done, and not only because I was a jackass. The girls around me were coming into glorious bloom, and my way of pretending not to be in awe of them was to act as if we were still kids—to tease and provoke them.

I'd never had a girlfriend, not really. In sixth grade, in Seattle, my friend Terry and I used to meet his cousin Patty and another girl at the Admiral Theatre on Saturday nights. Patty and I sat in the back and made out for two hours without exchanging a word, while Terry

did the same with Patty's friend. After the movie, Terry and I left by the side exit so his aunt wouldn't see him when she picked the girls up. Never a dance, never a soda with two straws.

That winter, I moved to a village in the Cascades. The elementary school had four rooms, where four teachers taught the eight grades. Of the ten kids in my class, nine were boys. Nevy drove us crazy, favoring this one, then that one. I had her attention for a while when I was new, and never again. Anyway, she was into horses, not boys.

The high school was in Concrete, thirty-two miles downriver. When we finally got there, we found girls, all right, but the pretty ones in our class got picked off by juniors and seniors, and the older ones wouldn't look at us.

That was the situation as I woke one afternoon with two-thirds of a finger and a bandage as big as a boxing glove to find a beautiful girl smiling down at me from the foot of my bed. By then, I'd been in the Mount Vernon Hospital for almost a week, because my stump had got infected and there was a danger of gangrene. I was floating on a morphine cloud and could only stare. "Hi," she said. "See, Daddy— just like Dr. Kildare!"

"That's my girl, Joelle," the man in the next bed said. There were five others on the

ward, all men. Joelle sat on my bed and offered me a candy bar. She said that I looked exactly like Dr. Kildare. I didn't speak, just listened to her husky voice. She had dark-red hair held back from her high brow by pink barrettes. Her skin was pale, pearly, with a few freckles across her cheeks. Her eyes were green, her lips red with lipstick. The other men watched us with amusement. They must have seen that I was in love.

When she came back the next day, she sat beside me again and talked and talked. An unfair grade. An argument with another girl. Before she left, she wrote her telephone number in the book I was reading. I

felt embarrassed that she had done this in front of her father, but I needn't have been. When I was discharged and was saying goodbye, her father said, "You call Joelle, now, hear?"

I called Joelle every day. She talked and I agreed, and sympathized, and waxed indignant as required. She wanted me to come visit, and one Saturday I hitchhiked the many miles to her house. She was waiting for me on the front steps of a small white house just off the road. The day was warm and she wore cutoff shorts and a sleeveless blouse. Her whiteness was dazzling. She led me inside to say hello to her father, who was lying on the couch in his bathrobe, watching TV, then she announced that we were going for a walk.

She took my hand, and we climbed the grassy hill behind the house, and sat on a fallen tree. She was quiet now, for the first time, facing me. I understood that she was waiting. That I had come to the moment I'd dreamed of, alone with a girl I liked, a beautiful girl, who liked me, and wanted me to kiss her. And I didn't. Couldn't. Instead, I started talking. I'd been mute before, but now I was babbling, asking her questions about school, her parents, which TV shows she liked. Here she was, with her beautiful green eyes and beautiful red mouth that she wanted me to kiss, and I could only make noise. I was in despair. Finally, she turned away and watched the traffic on the road below. "I wish I had a car," she said.

We walked down the hill, Joelle well ahead of me. She stood by the back door and said, "Bye. Nice to see you."

I called her the next day. I had to do all the talking. When I asked her questions, she said, "Yes," "No," "I guess."

Later, it all seemed like something I'd dreamed up. Why would a beautiful girl give me her number, and hold my hand, and want me to kiss her? Me—a boy without a car, who cut off his own finger?

And I didn't really look like Dr. Kildare.

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## EGGS

We turn out  
as tippy as  
eggs. Legs  
are an illusion.  
We are held  
as in a carton  
if someone  
loves us.  
It's a pity  
only loss  
proves this.

—*Kay Ryan*



# THE LAST AMAZON

*Wonder Woman returns, written by Jill Lepore and just so GRIPPING!*

The Wonder Woman Family Museum occupies a one-room bunker beneath a two-story house on a hilly street in Bethel, Connecticut. It contains more than four thousand objects. Their arrangement is higgledy-piggledy. There are Wonder Woman lunchboxes, face masks, coffee mugs, a Frisbee, napkins, record-players, T-shirts, bookends, a trailer-hitch cover, plates and cups, pencils, kites, and, near the floor, a pressed-aluminum cake mold, her breasts like cupcakes. A cardboard stand holds Pez dispensers, red, topped with Wonder Woman's head. Wonder Woman backpacks hang from hooks; sleeping bags are rolled up on a shelf. On a ten-foot-wide stage whose backdrop depicts ancient Greece—the Parthenon atop the Acropolis—Hippolyte, queen of the Amazons, a life-size mannequin wearing sandals and a toga, sits on a throne. To her left stands her daughter, Princess Diana, a mannequin dressed as

Wonder Woman: a golden tiara on top of a black wig; a red bustier embossed with an American eagle, its wings spread to form the letters “WW”; a blue mini-skirt with white stars; bracelets that can stop bullets; a golden lasso strapped to her belt; and, on her feet, super-kinky knee-high red boots. Nearby, a Wonder Woman telephone rests on a glass shelf. The telephone is unplugged.

Superman debuted in 1938, Batman in 1939, Wonder Woman in 1941. She was created by William Moulton Marston, a psychologist with a Ph.D. from Harvard. A press release explained, “‘Wonder Woman’ was conceived by Dr. Marston to set up a standard among children and young people of strong, free, courageous womanhood; to combat the idea that women are inferior to men, and to inspire girls to self-confidence and achievement in athletics, occupations and professions monopolized by men” because “the only hope for civilization is the greater freedom, development and equality of women in all fields of human activity.” Marston put it this way: “Frankly, Wonder Woman is psychological propaganda for the new type of woman who should, I believe, rule the world.”

The house in Bethel belongs to Marston's oldest son, Moulton Marston. He's eighty-six. Everyone calls him Pete. “I started it six or seven years ago when I had so much Wonder Woman stuff lying around,” he says. A particular strength of the collection is its assortment of Wonder Woman dolls, action figures, and

statuary. They come in every size, in ceramic, paper, rubber, plastic, and cloth; jointed, inflatable, and bobble-headed. Most are posed standing, legs astride, arms akimbo, fists clenched, half sassy, half badass. In a corner, blue eye-shadowed, pouty-lipped Wonder Woman Barbie dolls, tiaras missing, hair unkempt, have been crammed into a Wonder Woman wastebasket.

Many of the objects in the Wonder Woman Family Museum date to the nineteen-seventies, when DC Comics, which owns Superman, Batman, and Wonder Woman, was newly affiliated with Warner Bros. Between 1975 and 1979, Warner Bros. produced a Wonder Woman TV series, starring Lynda Carter, a former beauty queen. Since 1978, Warner Bros. has made six Superman films and eight Batman films, but, to the consternation of Wonder Woman fans, there has never been a Wonder Woman film. This is about to change. Last December, Warner Bros. announced that Wonder Woman would have a role in an upcoming Superman-and-Batman film, and that, in a three-movie deal, Gal Gadot, a lithe Israeli model, had signed on to play the part. There followed a flurry of comments about her anatomical insufficiency for the role.

“It’s been said that you’re too skinny,” an interviewer told Gadot on Israeli television. “Wonder Woman is large-breasted.”

“Wonder Woman is Amazonian,” Gadot said, smiling coyly. “And historically accurate Amazonian women actually had only one breast.” (They cut off the other one, the better to wield a bow.)

The film, being shot this summer and fall in Detroit and Chicago, is a sequel to last year’s “Man of Steel,” directed by Zack Snyder, with Henry Cavill as Superman. For the new film, Ben Affleck was cast as Batman. One critic tweeted this suggestion for a title: “BATMAN VS. SUPERMAN WITH ALSO SOME WONDER WOMAN IN THERE SO SIT DOWN LADIES WE’RE TREATING YOU FINE: THE MOVIE.” Warner Bros. has yet to dispel this impression. In May, the company announced that the film would be called “Batman v. Superman: Dawn of Justice.”

“You can talk all you want about other superhero movies, but it’s Batman and Superman, let’s just be honest,” Snyder said in an interview with *USA Today* in July. “I don’t know how you get bigger than that.”

The much cited difficulties regarding putting Wonder Woman on film—Wonder Woman isn’t big enough, and neither are Gal Gadot’s breasts—aren’t chiefly about Wonder Woman, or comic books, or superheroes, or movies. They’re about politics. Superman owes a debt to science fiction, Batman to the hardboiled de-

tective. Wonder Woman's debt is to feminism. She's the missing link in a chain of events that begins with the woman-suffrage campaigns of the nineteen-tens and ends with the troubled place of feminism a century later. Wonder Woman is so hard to put on film because the fight for women's rights has gone so badly.

"In the days of ancient Greece, many centuries ago, we Amazons were the foremost nation in the world," Hippolyte explains to her daughter in "Introducing Wonder Woman," the character's debut, in a 1941 issue of *All-Star Comics*. "In Amazonia, women ruled and all was well." Alas, that didn't last: men conquered and made women slaves. The Amazons escaped, sailing across the ocean to an uncharted island where they lived in peace for centuries until, one day, Captain Steve Trevor, a U.S. Army officer, crashed his plane there. "A man!" Princess Diana cries when she finds him. "A man on Paradise Island!" After rescuing him, she flies him in her invisible plane to "America, the last citadel of democracy, and of equal rights for women!"

*"How does this make you feel?"*

Wonder Woman's origin story comes straight out of feminist utopian fiction. In the nineteenth century, suffragists, following the work of anthropologists, believed that something like the Amazons of Greek myth had once existed, a matriarchy that predated the rise of patriarchy. "The period of woman's supremacy lasted through many centuries," Elizabeth Cady Stanton wrote in 1891. In the nineteen-tens, this idea became a staple of feminist thought. The word "feminism," hardly ever used in the United States before 1910, was everywhere by 1913. The suffrage movement had been founded on a set of ideas about women's supposed moral superiority. Feminism rested on the principle of equality. Suffrage was a single, elusive political goal. Feminism's demand for equality was far broader. "All feminists are suffragists, but not all suffragists are feminists," as one feminist explained. They shared an obsession with Amazons.

In 1913, Max Eastman, a founder of the New York Men's League for Woman Suffrage and the editor of *The Masses*, published "Child of the Amazons and Other Poems." In the title poem, an Amazonian girl falls in love with a man but can't marry him until "the far age when men shall cease/ Their tyranny, Amazons their revolt." The next year, Inez Haynes Gillmore, who, like Mary Woolley, the president of Mount Holyoke College, had helped found college suffrage leagues, published a novel called "Angel Island," in which five American men are shipwrecked on a desert island that turns out to be inhabited by "super-humanly beautiful" women with wings, who, by the end of the novel, walk "with the splendid, swing-

ing gait of an Amazon.”

Gillmore and Max Eastman’s sister Crystal were members of Heterodoxy, a group of Greenwich Village feminists. So was Charlotte Perkins Gilman. In 1915, Gilman published “Herland,” in which women live free from men, bearing only daughters, by parthenogenesis. (On Paradise Island, Queen Hippolyte carves her daughter out of clay.) In these stories’ stock plots, men are allowed to live with women only on terms of equality, and, for that to happen, there has to be a way for the men and women to have sex without the women getting pregnant all the time. The women in Gilman’s utopia practice what was called “voluntary motherhood.” “You see, they were Mothers, not in our sense of helpless involuntary fecundity,” Gilman wrote, “but in the sense of Conscious Makers of People.” At the time, contraception was illegal. In 1914, Margaret Sanger, another Greenwich Village feminist who attended meetings of Heterodoxy, started a magazine called *The Woman Rebel*, in which she coined the phrase “birth control” and insisted that “the right to be a mother regardless of church or state” was the “basis of Feminism.”

In 1917, when motion pictures were still a novelty and the United States had only just entered the First World War, Sanger starred in a silent film called “Birth Control”; it was banned. A century of warfare, feminism, and cinema later, superhero movies—adaptations and updates of mid-twentieth-century comic books whose plots revolve around anxieties about mad scientists, organized crime, tyrannical super-states, alien invaders, misunderstood mutants, and world-ending weapons—are the super-blockbusters of the last superpower left standing. No one knows how Wonder Woman will fare onscreen: there’s hardly ever been a big-budget superhero movie starring a female superhero. But more of the mystery lies in the fact that Wonder Woman’s origins have been, for so long, so unknown. It isn’t only that Wonder Woman’s backstory is taken from feminist utopian fiction. It’s that, in creating Wonder Woman, William Moulton Marston was profoundly influenced by early-twentieth-century suffragists, feminists, and birth-control advocates and that, shockingly, Wonder Woman was inspired by Margaret Sanger, who, hidden from the world, was a member of Marston’s family.

Marston entered Harvard College, as a freshman, in 1911. That fall, the Harvard Men’s League for Woman Suffrage invited the British militant Emmeline Pankhurst to give a lecture; the Harvard Corporation banned her from speaking on campus. The news made headlines all over the United States. “IS HARVARD AFRAID OF MRS. PANKHURST?” one newspaper asked. (The answer was yes.) Undaunted, Pankhurst spoke in Harvard Square. “The most ignorant young man, who knows nothing of the needs of women, thinks himself a competent legislator,

because he is a man,” Pankhurst told the crowd, eying the Harvard men. In 1915, Marston married Elizabeth Holloway, who’d just graduated from Mount Holyoke, where she studied Greek, read Sappho, and became a feminist. Her hero was Mary Woolley, who lived for fifty-five years with Jeannette Marks, an English professor and an ardent suffragist. “Feminism is not a prejudice,” Woolley explained. “It is a principle.” In 1916, Jeannette Rankin became the first woman elected to Congress, and Margaret Sanger and her sister Ethel Byrne, both nurses, opened the first birth-control clinic in the United States, in Brooklyn. (Sanger and Byrne founded what later became Planned Parenthood.) Byrne was arrested and, inspired by Pankhurst and her followers, went on a hunger strike that nearly killed her. In a statement to the press, she called attention to the number of women who die during abortions. “With the Health Department reporting 8,000 deaths a year in the State from illegal operations on women, one more death won’t make much difference, anyway,” she said. Against Byrne’s wishes, Sanger, hoping to save her sister’s life, made a deal with the governor of New York; he issued a pardon for Byrne on the condition that Sanger promise that her sister would never again participate in the birth-control movement.

Marston graduated from Harvard Law School in 1918; Holloway graduated from Boston University’s law school the same year. (Harvard Law School did not admit women.) Women finally gained the right to vote in 1920. That year, in her book “Woman and the New Race,” Sanger wrote, “The most far-reaching development of modern times is the revolt of woman against sex servitude,” and promised that contraception would “remake the world.” Marston finished his Ph.D. at Harvard in 1921, after a stint of service during the First World War. His research had to do with emotions. His dissertation concerned the detection of deception, as measured by changes in blood pressure. (Marston is often credited with inventing the lie-detector test, which is why Wonder Woman carries a magic lasso that makes anyone she ropes tell the truth.) He was also interested in another preoccupation of psychologists: sex, sexual difference, and sexual adjustment. Lewis Terman, who helped develop the I.Q. test, also helped create a test to measure “masculinity” and “femininity”: its purpose was to identify deviance. According to the behaviorist John B. Watson, feminism itself was a form of deviance. “Most of the terrible women one must meet, women with the blatant views and voices, women who have to be noticed, who shoulder one about, who can’t take life quietly, belong to this large percentage of women who have never made a sex adjustment,” Watson wrote in *The Nation*. Marston’s research ran in a different direction. In “Sex Characteristics of Systolic Blood Pressure Behavior,”

published in the *Journal of Experimental Psychology*, he reported on a series of tests that he and Holloway had conducted on ten men and ten women at Harvard between 1919 and 1921, while Holloway was pursuing a graduate degree in psychology at Radcliffe. They'd tried to get their subjects upset, and then they'd tried to arouse them. He believed his study demonstrated that women are more emotional than men and that women's emotions are often rooted in their sexuality ("there being a far greater number of adequate stimuli to sex-emotion in the female organism"). He also found out he really liked studying sex.

He then embarked on an academic career. Gaining the right to vote had by no means automatically led to political equality. The Equal Rights Amendment, drafted by Alice Paul, was first introduced to Congress in 1923. At the time, women were denied the right to serve on juries in thirty-one states. At American University, Marston and Holloway conducted a series of experiments whose findings, he said, demonstrated that women are more reliable jurors than men: "They were more careful, more conscientious and gave much more impartial consideration to all the testimony than did the male juries." Marston was fired from American University, after he was arrested for fraud, in connection with some business dealings. (All the charges were later dropped.) He next taught at Tufts, where, in 1925, he fell in love with one of his students: Ethel Byrne's daughter Olive.

At Tufts, Marston and Olive Byrne conducted research together. Byrne took him to her sorority, Alpha Omicron Pi, where freshmen pledges were required to dress up like babies and attend a "Baby Party." Marston later described it: "The freshmen girls were led into a dark corridor where their eyes were blindfolded, and their arms were bound behind them." Then the freshmen were taken into a room where juniors and seniors compelled them to do various tasks, while sophomores hit them with long sticks. "Nearly all the sophomores reported excited pleasantness of captivation emotion throughout the party," Marston reported. (Marston's interest in what he called "captivation emotion" informs the bondage in *Wonder Woman*.)

Beginning in 1925, Marston, Holloway, Byrne, and a librarian named Marjorie Wilkes Huntley, whom Marston had met during the war, attended regular meetings at the Boston apartment of Marston's aunt, Carolyn Keatley. Keatley believed in the teachings contained in a book called "The Aquarian Gospel of Jesus the Christ," by a preacher named Levi H. Dowling. She thought that she was living in the dawn of the Age of Aquarius, the beginning of a new astrological age, an age of love: the New Age. Minutes for the meetings held at Keatley's apartment describe a sexual "clinic," involving Love Leaders, Mistresses (or Mothers), and Love

Girls. A Love Leader, a Mistress, and their Love Girl form a Love Unit, a perfect constellation. There is much in the minutes about sex itself; e.g., “During the act of intercourse between the male and his Mistress, the male’s love organ stimulates the inner love organs of the Mistress, and not the external love organs,” but “if anyone wishes to develop the consciousness of submission, he or she must keep the sexual orgasm in check, and thus permit the nervous energy to flow freely and uninterruptedly into the external genital organs.” There is also much in the minutes about

Marston’s theory of dominance and submission; females, “in their relation to males, expose their bodies and use various legitimate methods of the Love sphere to create in males submission to them, the women mistresses or Love leaders, in order that they, the Mistresses, may submit in passion to the males.”

In 1926, Olive Byrne, then twenty-two, moved in with Marston and Holloway; they lived as a threesome, “with love making for all,” as Holloway later said. Olive Byrne is the mother of two of Marston’s four children; the children had three parents. “Both Mommies and poor old Dad” is how Marston put it.

Holloway said that Marston, Holloway, and Byrne’s living arrangements began as an idea: “A new way of living has to exist in the minds of men before it can be realized in actual form.” It had something to do with Sanger’s “Woman and the New Race.” Holloway tried to explain what she’d taken away from reading it: “The new race will have a far greater love capacity than the current one and I mean physical love as well as other forms.” And it had something to do with what Havelock Ellis, a British doctor who was one of Margaret Sanger’s lovers, called “the erotic rights of women.” Ellis argued that the evolution of marriage as an institution had resulted in the prohibiting of female sexual pleasure, which was derided as wanton and abnormal. Erotic equality, he insisted in 1918, was no less important than political equality, if more difficult to achieve. “The right to joy cannot be claimed in the same way as one claims the right to put a voting paper in a ballot box,” he wrote. “That is why the erotic rights of women have been the last of all to be attained.”

But there was more to it. For Holloway, the arrangement solved what, in the era of the New Woman, was known as the “woman’s dilemma”: hardly a magazine was sold, in those years, that didn’t feature an article that asked, “Can a Woman Run a Home and a Job, Too?” The modern woman, Crystal Eastman explained in *The Nation*, “wants some means of self-expression, perhaps, some way of satisfying her personal ambitions. But she wants a husband, home and children,

too. How to reconcile these two desires in real life, that is the question.” You can find more or less the very same article in almost any magazine today—think of Anne-Marie Slaughter’s 2012 essay, “Why Women Still Can’t Have It All”—which is a measure of just how poorly this question has been addressed. A century ago, though, it was new. Between 1910 and 1920, Virginia MacMakin Collier reported in 1926, in “Marriage and Careers,” the percentage of married women working had nearly doubled, and the number of married women in the professions had risen by forty per cent. “The question, therefore, is no longer, should women combine marriage with careers, but how?”

Here’s how. Marston would have two wives. Holloway could have her career. Byrne would raise the children. No one else need ever know.

The scandal of Marston’s family arrangements, which, inevitably, became known to his close colleagues, cost him his academic career. This kind of thing happens all the time in *Wonder Woman*. “What are you doing here?” Dean Sourpuss, of Holliday College, asks Professor Toxino. “You know you’re not welcome at this college!” In the nineteen-twenties, Marston barely held any appointment longer than a year, and, with each move, he climbed another step down the academic ladder. At American University, he’d been a full professor and the chair of the Psychology Department. Tufts appointed him an untenured assistant professor. In 1928, while he was teaching at Columbia—on a one-year appointment, as a lecturer—he published a book called “Emotions of Normal People,” as part of a series called the International Library of Psychology, Philosophy and Scientific Method. (Other contributors to the series included Wittgenstein, Piaget, and Adler.) Its chief argument is that much in emotional and sexual life that is generally regarded as abnormal and is therefore commonly hidden actually inheres within the very structure of the nervous system. The work of the clinical psychologist, Marston argued, is to provide patients with an “emotional re-education”: “People must be taught that the love parts of themselves, which they have come to regard as abnormal, are completely normal.”

Marston’s interests in deception, sex, and emotion fed a long-standing interest in film. He’d worked his way through Harvard by selling screenplays. In 1915, after the Edison Company held a nationwide talent search among American college students, promising a hundred dollars to the author of the best movie scenario submitted by a student at one of ten colleges—Harvard, Yale, Columbia, Cornell, Princeton, and the Universities of California, Chicago, Michigan, Pennsylvania, and Wisconsin—Marston won. The resulting film, “Jack Kennard, Coward,” played at scattered theatres across the country, in some places sharing a billing with

Charlie Chaplin. In 1916, Marston's undergraduate adviser, Hugo Münsterberg, who ran Harvard's Psychological Laboratory, published a psychological theory of cinema. (Münsterberg, who vehemently opposed both the suffrage and the feminist movements, is the inspiration for Wonder Woman's arch-nemesis, Doctor Psycho.) In 1928, when it became clear to Marston that his academic career was doomed, he returned to his earlier interest in the movies. Working with Byrne, who was, at the time, pursuing a Ph.D. in psychology at Columbia, he conducted a series of experiments at the Embassy Theatre, in New York. He invited reporters and photographers to watch as he seated an audience of six chorus girls—three blondes and three brunettes—in the front row. The experiment was captured on newsreel footage: "Dr. William Marston tests his latest invention: the Love Meter." Marston and Byrne hooked the girls up to blood-pressure cuffs and recorded their level of excitement as they watched the romantic climax of M-G-M's 1926 silent film "Flesh and the Devil," starring Greta Garbo. Marston

claimed his findings proved that brunettes are more easily aroused than blondes. Columbia did not renew Marston's appointment. Essentially, he was blacklisted. "He might fit very well in some places," the Harvard psychologist Edwin Boring wrote in a fainthearted letter of recommendation, "but in the average, normal, general department of psychology he would probably remain separated in his work, and even at times open to the charge of sensationalism."

In the summer of 1928, Carl Laemmle, the head of Universal Studios, placed a notice in the pages of the *Saturday Evening Post*:

Wanted—A Psychologist

Somewhere in this country there is a practical psychologist— accomplished in the science of the mind—who will fit into the Universal organization. He can be of real help in analyzing certain plot situations and forecasting how the public will react to them. As moving pictures are reaching out more and more for refinements, such a mental showman will have great influence on the screens of the world.

"Carl Laemmle Digs the 'Doc,' " *Variety* reported five months later, announcing that Universal had hired Marston, "Who Went Through Harvard Three Times Without Quitting." Marston, Holloway, Byrne, and baby Pete moved to Los Angeles. Marston was supposed to help with casting, story editing, and setting up camera shots, and, in general, to "apply psychology wherever psychology is needed." In one experiment, he showed Universal's 1929 film "The Love Trap" to

a thousand college students, omitting the final scene. He wanted to know whether audiences could handle movies that end with unfinished business.

Meanwhile, Marston and his friend Walter Pitkin, who had taught at the Columbia School of Journalism, wrote a book about how to write a screenplay for the talkies. Much of “The Art of Sound Pictures,”

published in 1929, is dedicated to explaining, point by point and state by state, what could pass the censors, and what couldn’t. Branding —“Scene showing branding iron in fire, if application of it is not shown”—was O.K. in New York, Ohio, and Virginia, not allowed in Pennsylvania, Maryland, or Kansas. Sex—“Man and woman (married or unmarried) walking toward bedroom, indicating contemplated intimacy, if they are not shown after the door closes on them”—depended on action. Homosexuality—“Action of characters, indicating they are perverted, as scene showing women kissing each other, if shown in long shot”—was not usually allowed.

Marston and Pitkin also founded a production company, Equitable Pictures. Pitkin scratched out a story idea for a film whose plot was to revolve “Around Bill Marston’s thesis: How can a woman love & yet make a living? How be economically independent & also erotically independent?” It would be called either “Brave Woman” or “Giddy Girl.” (The Giddy Girls was the stage name of Billy and Charlie Byrne, Olive Byrne’s uncles; they were female impersonators on the vaudeville circuit.) Equitable Pictures was incorporated in October of 1929, days before the stock market collapsed. It folded. A woman, one woman, who could be both economically and erotically independent would have to wait out the Depression. She’d have to have been a superhero, anyway. And superheroes hadn’t quite been invented yet.

Marston spent most of the nine-teen-thirties unemployed, supported by Holloway, who worked for Metropolitan Life Insurance, while Olive Byrne raised their four children in a sprawling house they called Cherry Orchard, in Rye, New York. Byrne also wrote for *Family Circle*, using the pen name Olive Richard. Her first article, a cover story from 1935, was a profile of Marston. In the story, she pretends they’re strangers. She goes to visit him. Marston attaches a blood-pressure cuff to Byrne’s arm—the machine that, in the experiments they conducted together, Byrne usually took charge of:

“Tell me what you did last evening—truth or lie, just as you like.”

I thought for a minute. Then I decided to be clever. I’d mix truth and falsehood

and see if he could tell which was which.

Byrne at once hid everything about her life and, like Marston, almost compulsively exposed it. But, plainly, she adored him. He was undignified and funny and warm. She found him wonderful:

This noted scientist is the most genuine human being I've met. He isn't fat—that is, in the ordinary way. He's just enormous all over. We walked through the garden and about the grounds. The doctor asked me about my work and myself, and I told him more in 15 minutes than I'd tell my most intimate friend in a week. He's the kind of person to whom you confide things about yourself you scarcely realize.

Margaret Sanger visited Cherry Orchard, and Olive Byrne brought the children—her two sons, Byrne and Donn, and Holloway's two children, Pete and Olive Ann—to visit Sanger at Sanger's house in Fishkill. (The kids called Sanger Aunt Margaret.) Sanger knew about the family intrigue and was untroubled by it. The children knew less. "The whys and wherefores of the family arrangements were never discussed with the kids—ever," Pete says.

The kids called Holloway Keets or Keetie, for "cutie," and Olive Byrne Dots or Dotsie, for "docile."

"What are Mommies, Daddies, and Keeties for anyway?" Olive Ann, at the age of three, asked Olive Byrne.

"I can't quite say myself," she replied quietly.

In 1937, the year the American Medical Association finally endorsed contraception, Marston held a press conference in which he predicted that women would one day rule the world. He also offered a list, "in the order of the importance of their contributions to humanity," of six surpassingly happy and influential people: Margaret Sanger was No. 2, just after Henry Ford and just before F.D.R. The story was picked up by the Associated Press, wired across the continent, and printed in newspapers from Topeka to Tallahassee. "WOMEN WILL RULE 1,000 YEARS HENCE!" the Chicago *Tribune* announced. The Los Angeles *Times* reported, "FEMININE RULE DECLARED FACT."

In 1940, M. C. Gaines, who published Superman, read an article in *Family Circle* by Olive Byrne. She'd been worried by reading in the papers that comic books were dangerous, and that Superman was a Fascist. "With terrible visions of Hitlerian justice in mind," she wrote in *Family Circle*, "I went to Dr. Marston."

“Do you think these fantastic comics are good reading for children?” she asked.

Mostly, yes, Marston said. They are pure wish fulfillment: “And the two wishes behind Superman are certainly the soundest of all; they are, in fact, our national aspirations of the moment—to develop unbeatable national might, and to use this great power, when we get it, to protect innocent, peace-loving people from destructive, ruthless evil.”

Gaines decided to hire Marston as a consultant. Marston convinced Gaines that what he needed, to counter the critics, was a female superhero. The idea was for her to become a member of the Justice Society of America, a league of superheroes that held its first meeting in *All-Star Comics No. 3*, in the winter of 1940: “Each of them is a hero in his own right, but when the Justice Society calls, they are only members, sworn to uphold honor and justice!” Wonder Woman’s début appeared in December, 1941, in *All-Star Comics No. 8*. On the eve of the Second World War, she flew her invisible plane to the United States to fight for peace, justice, and women’s rights. To hide her identity, she disguised herself as a secretary named Diana Prince and took a job working for U.S. Military Intelligence. Her gods are female, and so are her curses. “Great Hera!” she cries. “Suffering Sappho!” she swears. Her “undermeaning,” Marston explained, concerned “a great movement now under way—the growth in power of women.” Drawn by an artist named Harry G. Peter, who, in the nineteen-tens, had drawn suffrage cartoons, she looked like a pinup girl. She’s Eleanor Roosevelt; she’s Betty Grable. Mostly, she’s Margaret Sanger.

In the spring of 1942, Gaines included a one-page questionnaire in *All-Star Comics*. “Should WONDER WOMAN be allowed, even though a woman, to become a member of the Justice Society?” Of the first eighteen hundred and one questionnaires returned, twelve hundred and sixty-five boys and three hundred and thirty-three girls said yes; a hundred and ninety-seven boys, and just six girls, said no. Wonder Woman joined the Justice Society. She was the only woman. Gardner Fox, who wrote the Justice Society stories, made her the society’s secretary. In the summer of 1942, when all the male superheroes head off to war, Wonder Woman stays behind to answer the mail. “Good luck boys,” she calls out to them. “I wish I could be going with you!” Marston was furious.

In May, 1942, F.D.R. created the Women’s Army Auxiliary Corps. A hundred and fifty thousand women joined the Army, filling jobs that freed more men for combat. The corps “appears to be the final realization of woman’s dream of complete equality with men,” Sanger wrote in the New York *Herald-Tribune*. But she was

dismayed that the government didn't provide contraceptives for WAACs and adopted a policy of dismissing any woman who got pregnant. "This new women's Army is a great thing, a real test of the woman's movement," she said. "Never before has the fight for woman's equality narrowed down to the real issue, sex."

In 1943, Marston wrote a Wonder Woman story called "Battle for Womanhood." It opens with Mars, the god of war, angry that so many American women are helping with the war effort.

*"It's a shame there isn't a pill to stimulate conversation."*

"There are eight million American women in war activities—by 1944 there will be eighteen million!" one of Mars' female slaves reports, dragging a ball and chain.

"If women gain power in *war* they'll escape man's domination completely!" Mars thunders. "They will achieve a horrible independence! . . . If women become warriors like the Amazons, they'll grow stronger than men and put an end to war!"

He commands the Duke of Deception to put a stop to it. The Duke enlists the aid of Doctor Psycho, who, by means of tools he's developed in his psychological laboratory, conjures a trick in which George Washington rises from the dead and addresses a spellbound audience.

"I have a message for you—a warning!" Washington says. "*Women* will lose the war for America! Women should not be permitted to have the responsibilities they now have! Women must not make shells, torpedoes, airplane parts—they must not be trusted with war secrets or serve in the armed forces. *Women will betray their country through weakness if not treachery!*"

Wonder Woman, watching from the side, cries out, "He's working for the Axis!" To defeat Doctor Psycho, she breaks into his laboratory, dropping in through a skylight. Captured, she's trapped. Doctor Psycho locks her in a cage. Eventually, she's rescued by her best friend, Etta Candy, after which she frees Psycho's wife, Marva, whom he has blindfolded and chained to a bed.

"Submitting to a cruel husband's domination has ruined my life!" an emancipated Marva cries. "But what can a weak girl do?"

"Get strong!" Wonder Woman urges. "Earn your own living—join the WAACs or WAVES and fight for your country!"

At the end of 1943, Wonder Woman reports to Hippolyte, “Women are gaining power in the man’s world!” Hippolyte shows Wonder Woman what lies ahead: Etta Candy will be awarded an honorary degree and become Professor of Public Health at Wonder Woman College, and Diana Prince will be President of the United States.

In 1944, Wonder Woman became the only superhero, aside from Superman and Batman, to make the jump from the pages of a comic book to daily newspaper syndication as a comic strip. Marston had so much work to do, writing Wonder Woman stories, that he hired an assistant, nineteen-year-old Joye Hummel. She’d been a student in a psychology class he taught at the Katharine Gibbs School. (Hummel, now ninety, still has the exam that Marston gave in class. It reads as though it were written by Sheryl Sandberg. Question No. 6: “Advise Miss F. how to overcome her fear of talking with the company Vice President who is in charge of her Division and whom she has plenty of opportunities to contact if she chooses; also tell Miss F. why these contacts are to her advantage.”) To help Hummel write Wonder Woman, the family gave her copies of Marston’s “Emotions of Normal People” and Sanger’s “Woman and the New Race.”

By the end of the Second World War, the number of American women working outside the home had grown by sixty per cent; three-quarters of these women were married, and a third were mothers of young children. Three-quarters of the working women hoped to keep their jobs, but they were told to make room for men returning from military service. If they didn’t quit, they were forced out: their pay was cut, and factories stopped providing child care.

Marston died in 1947. “Hire me,” Holloway wrote to DC Comics. Instead, DC hired Robert Kanigher, and Wonder Woman followed the hundreds of thousands of American women workers who, when peace came, were told that their labor threatened the stability of the nation. Kanigher made Wonder Woman a babysitter, a fashion model, and a movie star. She gave advice to the lovelorn, as the author of a lonely-hearts newspaper advice column. Her new writer also abandoned a regular feature, “The Wonder Women of History”—a four-page centerfold in every issue, containing a biography of a woman of achievement. He replaced it with a series about weddings, called “Marriage à la Mode.”

“You, Daughter, must become the women’s leader,” the Duke of Deception tells Lya, in a Wonder Woman story written by Kanigher. “You must persuade them that they don’t want any political rights and that everything I dictate they vote for.” Lya smiles, and says, “That’ll be easy!”

In the nineteen-fifties, women went home. Women's rights went underground. And homosexuals were persecuted. Is there a "quick test like an X-ray that discloses these things?" U.S. Senator Margaret Chase Smith asked in hearings about homosexuality in 1950. At the State Department, a former F.B.I. officer was put in charge of purging the civil service of homosexuals by administering lie-detector tests, based on Marston's research. Those who failed were required to resign. Between 1945 and 1956, a thousand accused homosexuals employed by the State Department and five thousand employed by the federal government lost their jobs. Marston, Holloway, and Byrne had led a closeted life. It had its costs.

In 1948, Holloway went back to her job at Metropolitan Life. Byrne found another kind of employment. "I am working for our local 'Maternal Health Center' clinic," she wrote to Margaret Sanger, "and am most amused when they speak of you. Somehow they think you

are a contemporary of Florence Nightingale." It was as if Sanger had lived in another century. Byrne tried to explain to people at the clinic that Sanger was alive and well, but she never told anyone that she was Sanger's niece.

In the nineteen-fifties, Sanger turned her attention to the question of how she would be remembered. She'd been sorting through her papers, preparing them for the Library of Congress and for Smith College, deciding which papers to keep, and which to throw away. In 1951, at the age of seventy-two, Sanger sold the rights to a film based on her autobiography. She then wrote a letter to Ethel Byrne, claiming that the scriptwriter wished to make a slight alteration to the facts of the founding of the birth-control movement, regarding the trials the two women had faced in 1917. In the film, Sanger told her sister, "I should be the Hunger Strikee." Ethel Byrne would not be mentioned. Sanger asked her sister to sign a release stating that she agreed that the film would not "portray me or any part of my life" and that, in the film, it would appear "that Mrs. Sanger engaged in the famous hunger strike instead of myself." Ethel Byrne thought the release was "the funniest thing in the world," according to Olive. She never signed it. The film was never made.

In much the same way that Sanger wished she could erase from the historical record the fact that Ethel Byrne, and not she, had gone on a hunger strike, she also wanted to keep well hidden her ties to the comic-book superhero created by William Moulton Marston. Maybe she found the association embarrassing or thought it was unimportant. But, more likely, never mentioning it was among the things that Sanger did to help keep Olive Byrne's family arrangements secret, in

order to avoid scandal for Olive and the children, and harm to Sanger's cause. Whatever the reason, in no part of the story of Sanger's life, as she told it, did she ever mention Wonder Woman.

Holloway and Byrne lived together for the rest of their lives. In the fifties and sixties, they often stayed in Tucson, taking care of Sanger. Byrne worked as Sanger's secretary. In 1961, Byrne's son Donn married one of Sanger's granddaughters; she became Margaret Sanger Marston. In 1965, when the Supreme Court effectively legalized contraception, in *Griswold v. Connecticut*, Byrne wrote to Justice William O. Douglas, who had written the opinion for the 7-2 majority, "I am sure Mrs. Sanger, who is very ill, would rejoice in this pronouncement which crowns her 50 years of dedication to the liberation of women." Sanger died the next year.

In 1972, the editors of *Ms.* put Wonder Woman on the cover of the first regular issue, bridging the distance between the feminism of the nineteen-tens and the feminism of the nineteen-seventies with the Wonder Woman of the nineteen-forties, the feminism of their childhoods. "Looking back now at these Wonder Woman stories from the '40s," Gloria Steinem wrote, "I am amazed by the strength of their feminist message."

*Ms.* was meant to be an organ for a revived feminist movement, begun in 1963 with the publication of Betty Friedan's "Feminine Mystique" and the passage of the Equal Pay Act. The National Organization for Women was founded in 1966. In 1969, Ellen Willis and Shulamith Firestone started the Redstockings of the Women's Liberation Movement. Firestone's manifesto, "The Dialectic of Sex: The Case for Feminist Revolution," was published the next year, along with Kate Millet's "Sexual Politics" and Robin Morgan's "Sisterhood Is Powerful." A revolution was being waged, too, in the world of magazines. In March, 1970, forty-six women working at *Newsweek* sued the magazine for discrimination. At the *Ladies' Home Journal*, more than a hundred women staged an eleven-hour sit-in; their demands included day care, a female senior editorial staff, and a special issue of the magazine to be called *The Women's Liberated Journal*.

The revolution also came to comics. In July, 1970, the Women's Liberation Basement Press, in Berkeley, launched an underground comic book called "It Aint Me Babe." Its first issue featured Wonder Woman on its cover marching in a parade with female comic characters, protesting stock plots. In a story called "Breaking Out," Veronica ditches Archie for Betty, Supergirl tells Superman to get lost, Petunia Pig tells Porky Pig to cook his own dinner, and, when Iggy tells Lulu she

can't be in his parade ("No girls allowed!"), she walks away, saying, "Fuck this shit!"

A nationwide Women's Strike for Equality was held on August 26, 1970, the fiftieth anniversary of the passage of the Nineteenth Amendment. Joanne Edgar helped organize the work stoppage at Facts on File. Patricia Carbine went on strike at *Look*. A year later, Edgar became a founding editor of *Ms.*, Carbine its publisher.

"Hello, I'm Elizabeth Marston and I know all about Wonder Woman," Holloway said when she walked into the offices of *Ms.*, in the spring of 1972. She was nearly eighty, as pale as paper and as thin as bone. In Virginia, where she was living with Olive Byrne, who was sixty-eight, she'd got a letter from Joanne Edgar, telling her that *Ms.* was planning to run a cover story about Wonder Woman. Holloway flew to New York. She met the magazine's writers and editors and artists. "All were on the young side, very much in earnest," she reported to Marjorie Wilkes Huntley. "I told them I was 100% with them in what they are trying to do and to 'charge ahead!' " Huntley sent in a money order for a subscription, signing herself, at the age of eighty-two, "Marjorie Wilkes Huntley (*Ms.*)."

But Holloway never told Edgar, or anyone else, about Olive Byrne. In 1974, when a Berkeley Ph.D. student writing a dissertation about Wonder Woman asked Holloway about Wonder Woman's bracelets, Holloway replied in a letter, "A student of Dr. Marston's wore on each wrist heavy, broad silver bracelets, one African and the other Mexican. They attracted his attention as symbols of love binding so that he adopted them for the Wonder Woman strip." The bracelets were Olive Byrne's. Olive Byrne had at that point been living with Holloway for forty-eight years.

At the beginning of 1972, when the editors of *Ms.* were planning their Wonder Woman issue, the women's movement seemed on the verge of lasting success. On March 22, 1972, the Equal Rights Amendment passed the Senate, nearly a half century after it had been introduced. In June, Congress also passed Title IX, assuring that "No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving federal financial assistance." The year 1972 was a legislative watershed. "We put sex-discrimination provisions into everything," Bella Abzug said. "There was no opposition. Who'd be against equal rights for women?"

that Gloria Steinem was a C.I.A. agent, that *Ms.* was both a capitalist manifesto and part of a C.I.A. strategy to destroy the women's movement, and that Wonder Woman was a symbol of nothing so much as feminism betrayed. "Wonder Woman also reflects the anti-people attitude of the 'liberal feminists' and matriarchists who look to mythical and supernatural heroines and 'models' while ignoring or denigrating the achievements and struggles of down-to-earth women," they charged. "It leads to the 'liberated woman,' individualist line that denies the need for a movement, and implies that when women don't make it, it's their own fault." Steinem rebutted the allegations. "Although it seems bizarre to have to write this obvious sentence," she wrote, "let me state that I am not now nor have I ever been an employee of the Central Intelligence Agency."

Wonder Woman ran for President in a comic book written by Marston in 1943; she ran for President on the cover of *Ms.* in 1972. She'll run again; she's never won. The Equal Rights Amendment never became law; in 1982, the deadline for its ratification expired. A century after Sanger started *The Woman Rebel*, even the fight for birth control isn't over.

Last March, I went to see "Captain America: The Winter Soldier," with Byrne Holloway Marston. He's named for all three of his parents. He's eighty-three. He's a retired obstetrician. He's also a movie buff. He's optimistic about Gal Gadot, though he thinks that Jennifer Lawrence would have made a tip-top Wonder Woman. "She's good enough to soften it up," he says.

Captain America and Wonder Woman are about the same age. He made his debut in 1940. They've aged differently, the Boy Scout and the bombshell. Captain America is so hard to update that Marvel decided to have him frozen in 1945 and awakened in 2011. A guy he meets while out for a run on the Washington Mall asks him what's different about now versus 1945. "No polio is good," he says.

Warner Bros. is unlikely to release a film in which Wonder Woman is frozen in time in 1941, in order to call attention to what's changed for women, and what's not, when she's defrosted. She'd have to take stock, and what could she say about what women have got? Breast pumps and fetal rights instead of paid maternity leave and equal rights? Longer hours instead of equal pay? Aphrodite, aid me! Lean in? Are you *kidding*? Batman vs. Superman? Suffering Sappho.

Sitting in the dark, I asked Byrne Marston what he thought he would do if he were writing Wonder Woman into the script for "Dawn of Justice."

"God, I don't know," he said. He stretched out his legs. "I'd go back to the origins."



# WHAT KIND OF CREATIVE?

*A Theory on Creativity posted January 17, 2008 by Doug White*

What can designers learn about the creative process from an economist? A great deal, surprisingly. David W. Galenson, a noted professor of economics at the University of Chicago, is the author of “Old Masters and Young Geniuses: The Two Life Cycles of Artistic Creativity” (Princeton University Press). In the recently released book, Galenson argues that there are two distinct creative types that employ two fundamentally different approaches to artistic innovation.

He posits that experimental innovators (old masters) work by trial and error and make their major contributions late in their careers, while conceptual innovators (young geniuses) have flashes of brilliance and enjoy major artistic breakthroughs at young ages. Galenson examines and classifies the creative approaches and career trajectories of artists such as Pablo Picasso, Andy Warhol, Jasper Johns, Edgar Degas and Mark Rothko, in addition to famous poets, novelists, filmmakers and sculptors. HOW recently interviewed Galenson about his thought-provoking book.

*Your research suggests that there are two types of artists, in terms of creativity: experimental innovators and conceptual innovators. What sets them apart, and how do you differentiate between each of them?*

The two types of innovators have different goals and use different methods. Experimental artists build their skills gradually over the course of their careers, improving their work slowly over long periods. These artists are perfectionists and are typically plagued by frustration at their inability to achieve their goals. They are uncertain about how to reach them, so they work tentatively, through trial and error. These artists repeat themselves, painting the same subject many times, gradually changing its treatment in an incremental, experimental process. They consider the production of a painting as a process of searching, in which they aim to discover the image in the course of making it. They typically believe that learning is a more important goal than making finished paintings. Adjectives I use to describe experimental innovators include empirical, realistic, uncertain, cautious, persistent, wise and mature.

In contrast, artists who have made conceptual innovations have been motivated by the desire to communicate specific ideas or emotions. Their goals for a particular work can usually be stated precisely, before its production. They make detailed preparatory sketches or plans for their paintings. Conceptual innovations appear suddenly. A new idea immediately produces a result quite different from other artists’ work and from the artist’s own previous work. Adjectives I use to describe conceptual innovators include abstract, theoretical, imaginative, precocious, certain, versatile, brash and iconoclastic.

# ART OF DARKNESS

*Pico Iyer in the New York Times October 2014*

To what extent is the price of immortality humanity, as you could put it? Must the revolutionary artist ignore — even flout — the basic laws of decency that govern our world in order to transform that world? “Perfection of the life, or of the work,” as Yeats had it. “And if it take the second,” he went on, the intellect of man “must refuse a heavenly mansion, raging in the dark.”

It was an ancient question even then, but somehow every other book I’ve been reading of late comes back to it. Walter Isaacson’s unbiddable 2011 biography of Steve Jobs presents his subject as a kind of Lee Kuan Yew of the tech industry, demanding we give up our ideas of democracy and control in exchange for a gorgeously designed new operating system. Innovation doesn’t have to be so dictatorial: Albert Einstein, the subject of Isaacson’s previous biography, is revered in part for his readiness to defer to what he didn’t understand. Yet the more we read about Jobs publicly humiliating colleagues and refusing to acknowledge responsibility for the birth of his first child, the more we see that his genius could seem inextricable from his indifference to social norms.

That same spirit seemed to infect Lucian Freud, the subject of Geordie Greig’s compulsively readable portrait of the artist, “Breakfast With Lucian,” a book best accompanied by “Man With a Blue Scarf,” Martin Gayford’s elegant account of sitting for a picture by the man. Greig, a regular dining companion of Freud’s, serves up an excoriating close-up of a creature tearing through British high society, fathering as many as 30 children (some of whom he painted in the nude), seducing young women well into his 80s and getting into fistfights until his death. Gayford, meanwhile, watches the man from the other side of the canvas, and shows us an artist who’s captivating precisely because of his single-mindedness and the ravenousness of his energy. The lover of hasty couplings Greig describes becomes, in Gayford’s book, a perfectionist of rare focus who refuses to let even human connections complicate the human reality he’s trying to get down for all time.

One of the intriguing features of Greig's book is a quote on the back from V. S. Naipaul, expressing his admiration for Freud, the "dedicated artist" who stated, "I will paint myself to death." Naipaul's similar dedication is the obsession behind Hanif Kureishi's latest novel, "The Last Word," which examines the Freudian conundrum, as you could call it, through a barely disguised Indo-Anglian writer known for both the outrageousness of his public comments and the beauty and seriousness of his work. This Naipaul-like figure might almost be deliberately mocking the civilities of daily life in order to protect that part of him that gets that life down with such unsparing honesty, self-lacerating depths and, in fact, compassion.

All of us know — we almost expect — that an artist will use up everyone he meets in the hope that the payoff in the public sphere will make up for casualties in the private. Even those of us without such gifts find it hard to serve two masters. Years ago, when I began writing, I noticed that the writing life and the happy (you could even say, the good) life lay in opposite directions. For the former I would have to take myself away from much that I cared about, and give myself over to the dark spaces in the world (and in the self) that I, like most of us, would rather look away from. Writing feeds on the tension — even the tragedy — that a happy life aspires to see beyond.

But what intensifies the stakes today, as Naipaul perhaps intuited, is that we hunger for more and more information about the person behind every work and, alas, can get it. (Thank heavens Shakespeare and Homer are more or less out of our reach!) Every Philip Larkin or T. S. Eliot is judged now on the basis of stray comments in letters or diaries — soon it will be tweets and talk shows, too — instead of the works he labored to produce. Naipaul seems almost to be playing with that idea in the brilliant book he helped his authorized biographer, Patrick French, produce, "The World Is What It Is." As one damning comment about V. S. Naipaul after another is delivered — by V. S. Naipaul — he might be cleverly pre-empting many a hostile biographer hungry to desecrate the work with the life.

Thirty years ago, Philip Roth reminded *The Paris Review* that "literature isn't a moral beauty contest." It may even be an investigation of how beside the point conventional morality can be, especially in the making of literature. If the first requirement of the job is talent, the second is ruthlessness, and ruthlessness may be the more important because it's more difficult to find. Even in the moral sphere, we cherish such heroes as Mohandas Gandhi and Martin Luther King Jr., although we know that they sometimes sacrificed their loved ones to a cause and did things they would themselves condemn. Wisdom is said to be beyond the reach of everyday good and bad.

Yet the deeper implication of the books I've been reading is even more unnerving: The charisma that Jobs and Naipaul and Freud seemed to share appears to be not just a cause of their intense and original work, but, at times, an effect. The more they turned their backs on the world, spurning its every piety, the more others came flocking after them, all but begging to be devoured in their flames.

*Sometimes, my mind likes to muse on this type of ... polarity and attraction.*



# A ROSE BY OTHER NAMES

*NYT review of 'This Blue,' by Maureen N. McLane by Jeff Gordinier July 18, 2014*

I know a songwriter who hates nature poetry. Just about every other style of verse speaks to this guy, whether it's traditional or avant-garde, unabashedly romantic or abstractedly cerebral, but as soon as my friend hears about silvery, moonlit branches swooshing in some mountain breeze, or raindrops mystically anointing a spray of spring wildflowers, he wants to gag.

It isn't nature he objects to, of course. What grates on him is an all-too-easy portrayal of the natural world as a cartoon Eden — a dainty, defanged, sentimentalized landscape that seems to exist for no other reason than to teach people nice lessons. In "My Poets," a bracing book from 2012 in which she deftly fused memoir and literary criticism, Maureen N. McLane appeared likely to agree with him. There, she stingingly described the "dreadful" work that often issues forth from the quasi-pastoral pitfall: "forced engagement with nature, revolting rhetorical performances of the pathetic fallacy (I feel for you! You, Nature, Feel for and with Me!)."

So when McLane herself writes a poem about, say, strolling through a meadow, it's only natural, so to speak, that the end result is bound to be a very different experience. Calling her a nature poet would be inaccurate, and unfairly limiting, but many of the poems in her new collection, "This Blue," enter into a fresh engagement with what she refers to as the "embroidered earth." If they qualify as nature poems, then they are nature poems for this moment in which nature itself appears to be going haywire, primarily at the hands of those of us who have a knack for messing it up. Wander into the sylvan glade with McLane and you might find yourself recalling the rule Larry David reportedly insisted on when he and Jerry Seinfeld were creating "Seinfeld": "No hugging, no learning."

Underlying much of "This Blue" is a sense of a world that's cracked and cracking. Consider the title of one poem: "Summer Beer With Endangered Glacier." Or consider "Song," in which she writes: "Love's in Gloucester / where the whalers once sailed / and the cod's collapsed." In "Lunch With Mountain," the narrator's communion with a clump of flora appears to have backfired. "The moss I ate / revised my esophagus / into a symbiotic system / any lichen could live in. / I ate too much / you sd last night." And when she's writing about a rosebud in "All Good," McLane drops an anatomical metaphor unsettling enough to make you

think twice the next time you lean in for a fragrant whiff at the florist's.

This is not the literary equivalent of Ambien — comforting verse meant to ship you off to dreamland. These are poems that keep you on your toes, and McLane makes you aware of that right from the start. The book gets rolling with “A Situation,” whose opening stanzas evoke the destabilizations of climates in flux:

Everything bending  
elsewhere, summer  
longer, winter mud &  
the maples escaping  
for norther zones . . .  
Take it up Old Adam —  
every day the world exists  
to be named.

Page after page, the tone of “This Blue” might be described as elegant unease. You may feel, at first, as if you're strolling out onto a welcoming, sunlit summer porch, but after a few stanzas you're starting to wonder whether Philip Larkin, James Wright and Emily Dickinson have pulled up Adirondack chairs next to you for some prickly, moody chitchat. (And is that Frederick Seidel coming through the screen door with a tray of cocktails?) “They Were Not Kidding in the Fourteenth Century” wins you over right away — with that kicky title, of course, and then with a gambit that suggests there could be openhearted sweetness to come: “They were not kidding / when they said they were blinded / by a vision of love.”

But within a few beats the poem has revealed its bitterness — and has abruptly turned on whomever it's addressed to. It stops with a slap: “The effort your life / requires exhausts me. / I am not kidding.”

McLane is a poet of control. While the world in her viewfinder seems to be wobbling on its axis — “The sky's shifted / and Capricorns abandon / themselves to a Sagittarian / line” — McLane renders each phrase with the precise and steady hand of an ice sculptor. Her consummate finesse can be a source of delight, at least for the reader who's not expecting easy sledding, and as I kept revisiting “This Blue” I found myself wishing someone would hire Tilda Swinton to record the whole thing as an audiobook. Lines like “Now the sun burns / unprotected skin” and “The merchant republics are done” are tailor-made for Swinton's chillingly smart, slightly imperious, drips-from-an-icicle delivery.



Yet McLane, like Swinton, can be most effective when she lets her guard down, perhaps because she does it so sparingly. Residents of the Eastern Seaboard with a fondness for rail travel will find it difficult not to be smitten with “Quiet Car,” a hushed lullaby in which the narrator waits for a lover making the trip to Boston by train. No, meadows and forests don’t provide much of a refuge for human beings in “This Blue,” but that quiet car? The one chamber of the train set aside for people who don’t want to talk and don’t want to have to listen to other people talking? Well, that’s where you might find a moment of peace.

Just as long as you don’t expect to get it from a plant. In “OK Fern,” the speaker has a little fun with the whole idea of pastoral poetry, and strikes up a very short conversation with, yes, a fern. She asks it a question: “Tell me what to do / with my life.” The poem ends there. It’s pretty clear no answer will be forthcoming.

# EXISTENTIAL DEPRESSION

## IN GIFTED INDIVIDUALS *James T. Webb*

It has been my experience that gifted and talented persons are more likely to experience a type of depression referred to as existential depression. Although an episode of existential depression may be precipitated in anyone by a major loss or the threat of a loss which highlights the transient nature of life, persons of higher intellectual ability are more prone to experience existential depression spontaneously. Sometimes this existential depression is tied into the positive disintegration experience referred to by Dabrowski (1996).

Existential depression is a depression that arises when an individual confronts certain basic issues of existence. Yalom (1980) describes four such issues (or “ultimate concerns”)—death, freedom, isolation and meaninglessness. Death is an inevitable occurrence. Freedom, in an existential sense, refers to the absence of external structure. That is, humans do not enter a world which is inherently structured. We must give the world a structure which we ourselves create. Isolation recognizes that no matter how close we become to another person, a gap always remains, and we are nonetheless alone. Meaninglessness stems from the first three. If we must die, if we construct our own world, and if each of us is ultimately alone, then what meaning does life have?

Why should such existential concerns occur disproportionately among gifted persons? Partially, it is because substantial thought and reflection must occur to even consider such notions, rather than simply focusing on superficial day-to-day aspects of life. Other more specific characteristics of gifted children are important predisposers as well.

Because gifted children are able to consider the possibilities of how things might be, they tend to be idealists. However, they are simultaneously able to see that the world is falling short of how it might be. Because they are intense, gifted children feel keenly the disappointment and frustration which occurs when ideals are not reached. Similarly, these youngsters quickly spot the inconsistencies, arbitrariness and absurdities in society and in the behaviors of those around them. Traditions are questioned or challenged. For example, why do we put such tight sex-role or age-role restrictions on people? Why do people engage in hypocritical behaviors in which they say one thing and then do another? Why do people say things they really do not mean at all? Why are so many people so unthinking and uncaring in their

dealings with others? How much difference in the world can one person's life make?

When gifted children try to share these concerns with others, they are usually met with reactions ranging from puzzlement to hostility. They discover that others, particularly of their age, clearly do not share these concerns, but instead are focused on more concrete issues and on fitting in with others' expectations. Often by even first grade, these youngsters, particularly the more highly gifted ones, feel isolated from their peers and perhaps from their families as they find that others are not prepared to discuss such weighty concerns.

When their intensity is combined with multi-potentiality, these youngsters become particularly frustrated with the existential limitations of space and time. There simply aren't enough hours in the day to develop all of the talents that many of these children have. Making choices among the possibilities is indeed arbitrary; there is no "ultimately right" choice. Even choosing a vocation can be difficult if one is trying to make a career decision between essentially equal passion, talents and potential in violin, neurology, theoretical mathematics and international relations.

The reaction of gifted youngsters (again with intensity) to these frustrations is often one of anger. But they quickly discover that their anger is futile, for it is really directed at "fate" or at other matters which they are not able to control. Anger that is powerless evolves quickly into depression.

In such depression, gifted children typically try to find some sense of meaning, some anchor point which they can grasp to pull themselves out of the mire of "unfairness." Often, though, the more they try to pull themselves out, the more they become acutely aware that their life is finite and brief, that they are alone and are only one very small organism in a quite large world, and that there is a frightening freedom regarding how one chooses to live one's life. It is at this point that they question life's meaning and ask, "Is this all there is to life? Is there not ultimate meaning? Does life only have meaning if I give it meaning? I am a small, insignificant organism who is alone in an absurd, arbitrary and capricious world where my life can have little impact, and then I die. Is this all there is?"

Such concerns are not too surprising in thoughtful adults who are going through mid-life crises. However, it is a matter of great concern when these existential questions are foremost in the mind of a twelve or fifteen year old. Such existential depressions deserve careful attention, since they can be precursors to suicide.

How can we help our bright youngsters cope with these questions? We cannot do much about the finiteness of our existence. However, we can help youngsters learn

to feel that they are understood and not so alone and that there are ways to manage their freedom and their sense of isolation.

The isolation is helped to a degree by simply communicating to the youngster that someone else understands the issues that he/she is grappling with. Even though your experience is not exactly the same as mine, I feel far less alone if I know that you have had experiences that are reasonably similar. This is why relationships are so extremely important in the long-term adjustment of gifted children (Webb, Meckstroth and Tolan, 1982).

A particular way of breaking through the sense of isolation is through touch. In the same way that infants need to be held and touched, so do persons who are experiencing existential aloneness. Touch seems to be a fundamental and instinctual aspect of existence, as evidenced by mother-infant bonding or “failure to thrive” syndrome. Often, I have “prescribed” daily hugs for a youngster suffering existential depression and have advised parents of reluctant teenagers to say, “I know that you may not want a hug, but I need a hug.” A hug, a touch on the arm, playful jostling, or even a “high five” can be very important to such a youngster, because it establishes at least some physical connection.

The issues and choices involved in managing one’s freedom are more intellectual, as opposed to the reassuring aspects of touch as a sensory solution to an emotional crisis. Gifted children who feel overwhelmed by the myriad choices of an unstructured world can find a great deal of comfort in studying and exploring alternate ways in which other people have structured their lives. Through reading about people who have chosen specific paths to greatness and fulfillment, these youngsters can begin to use bibliotherapy as a method of understanding that choices are merely forks in the road of life, each of which can lead them to their own sense of fulfillment and accomplishment (Halsted, 1994). We all need to build our own personal philosophy of beliefs and values which will form meaningful frameworks for our lives.

It is such existential issues that lead many of our gifted individuals to bury themselves so intensively in “causes” (whether these causes are academics, political or social causes, or cults). Unfortunately, these existential issues can also prompt periods of depression, often mixed with desperate, thrashing attempts to “belong.” Helping these individuals to recognize the basic existential issues may help, but only if done in a kind and accepting way. In addition, these youngsters will need to understand that existential issues are not ones that can be dealt with only once, but rather ones that will need frequent revisiting and reconsideration.



# OUR PLACE IN THE UNIVERSE

*Alan Lightman, published in the December 2012 issue of Harper's Magazine*

My most vivid encounter with the vastness of nature occurred years ago on the Aegean Sea. My wife and I had chartered a sailboat for a two-week holiday in the Greek islands. After setting out from Piraeus, we headed south and hugged the coast, which we held three or four miles to our port. In the thick summer air, the distant shore appeared as a hazy beige ribbon—not entirely solid, but a reassuring line of reference. With binoculars, we could just make out the glinting of houses, fragments of buildings.

Then we passed the tip of Cape Sounion and turned west toward Hydra. Within a couple of hours, both the land and all other boats had disappeared. Looking around in a full circle, all we could see was water, extending out and out in all directions until it joined with the sky. I felt insignificant, misplaced, a tiny odd trinket in a cavern of ocean and air.

Naturalists, biologists, philosophers, painters, and poets have labored to express the qualities of this strange world that we find ourselves in. Some things are prickly, others are smooth. Some are round, some jagged. Luminescent or dim. Mauve colored. Pitter-patter in rhythm. Of all these aspects of things, none seems more immediate or vital than size. Large versus small. Consciously and unconsciously, we measure our physical size against the dimensions of other people, against animals, trees, oceans, mountains. As brainy as we think ourselves to be, our bodily size, our bigness, our simple volume and bulk are what we first present to the world. Somewhere in our fathoming of the cosmos, we must keep a mental inventory of plain size and scale, going from atoms to microbes to humans to oceans to planets to stars. And some of the most impressive additions to that inventory have occurred at the high end. Simply put, the cosmos has gotten larger and larger. At each new level of distance and scale, we have had to contend with a different conception of the world that we live in.

The prize for exploring the greatest distance in space goes to a man named Garth Illingworth, who works in a ten-by-fifteen-foot office at the University of California, Santa Cruz. Illingworth studies galaxies so distant that their light has traveled through space for more than 13 billion years to get here. His office is packed with tables and chairs, bookshelves, computers, scattered papers, issues of *Nature*, and a small refrigerator and a microwave to fuel research that can extend into the wee hours of the morning.

Like most professional astronomers these days, Illingworth does not look directly through a telescope. He gets his images by remote control—in his case, quite remote. He uses the Hubble Space Telescope, which orbits Earth once every ninety-seven minutes, high above the distorting effects of Earth's atmosphere. Hubble takes digital photographs of galaxies and sends the images to other orbiting satellites, which relay them to a network of earthbound antennae; these, in turn, pass the signals on to the Goddard Space Flight Center in Greenbelt, Maryland. From there the data is uploaded to a secure website that Illingworth can access from a computer in his office.

The most distant galaxy Illingworth has seen so far goes by the name UDFj-39546284 and was documented in early 2011. This galaxy is about 100,000,000,000,000,000,000 miles away from Earth, give or take. It appears as a faint red blob against the speckled night of the distant universe—red because the light has been stretched to longer and longer wavelengths as the galaxy has made its lonely journey through space for billions of years. The actual color of the galaxy is blue, the color of young, hot stars, and it is twenty times smaller than our galaxy, the Milky Way. UDFj-39546284 was one of the first galaxies to form in the universe.

“That little red dot is hellishly far away,” Illingworth told me recently. At sixty-five, he is a friendly bear of a man, with a ruddy complexion, thick strawberry-blond hair, wire-rimmed glasses, and a broad smile. “I sometimes think to myself: What would it be like to be out there, looking around?”

One measure of the progress of human civilization is the increasing scale of our maps. A clay tablet dating from about the twenty-fifth century B.C. found near what is now the Iraqi city of Kirkuk depicts a river valley with a plot of land labeled as being 354 iku (about thirty acres) in size. In the earliest recorded cosmologies, such as the Babylonian *Enuma Elish*, from around 1500 B.C., the oceans, the continents, and the heavens were considered finite, but there were no scientific estimates of their dimensions. The early Greeks, including Homer, viewed Earth as a

circular plane with the ocean enveloping it and Greece at the center, but there was no understanding of scale. In the early sixth century B.C., the Greek philosopher Anaximander, whom historians consider the first mapmaker, and his student Anaximenes proposed that the stars were attached to a giant crystalline sphere. But again there was no estimate of its size.

The first large object ever accurately measured was Earth, accomplished in the third century B.C. by Eratosthenes, a geographer who ran the Library of Alexandria. From travelers, Eratosthenes had heard the intriguing report that at noon on the summer solstice, in the town of Syene, due south of Alexandria, the sun casts no shadow at the bottom of a deep well. Evidently the sun is directly overhead at that time and place. (Before the invention of the clock, noon could be defined at each place as the moment when the sun was highest in the sky, whether that was exactly vertical or not.) Eratosthenes knew that the sun was not overhead at noon in Alexandria. In fact, it was tipped 7.2 degrees from the vertical, or about one fiftieth of a circle—a fact he could determine by measuring the length of the shadow cast by a stick planted in the ground. That the sun could be directly overhead in one place and not another was due to the curvature of Earth. Eratosthenes reasoned that if he knew the distance from Alexandria to Syene, the full circumference of the planet must be about fifty times that distance. Traders passing through Alexandria told him that camels could make the trip to Syene in about fifty days, and it was known that a camel could cover one hundred stadia (almost eleven and a half miles) in a day. So the ancient geographer estimated that Syene and Alexandria were about 570 miles apart. Consequently, the complete circumference of Earth he figured to be about  $50 \times 570$  miles, or 28,500 miles. This number was within 15 percent of the modern measurement, amazingly accurate considering the imprecision of using camels as odometers.

As ingenious as they were, the ancient Greeks were not able to calculate the size of our solar system. That discovery had to wait for the invention of the telescope, nearly two thousand years later. In 1672, the French astronomer Jean Richer determined the distance from Earth to Mars by measuring how much the position of the latter shifted against the background of stars from two different observation points on Earth. The two points were Paris (of course) and Cayenne, French Guiana. Using the distance to Mars, astronomers were also able to compute the distance from Earth to the sun, approximately 100 million miles.

A few years later, Isaac Newton managed to estimate the distance to the nearest stars. (Only someone as accomplished as Newton could have been the first to perform such a calculation and have it go almost unnoticed among his other achieve-

ments.) If one assumes that the stars are similar objects to our sun, equal in intrinsic luminosity, Newton asked, how far away would our sun have to be in order to appear as faint as nearby stars? Writing his computations in a spidery script, with a quill dipped in the ink of oak galls, Newton correctly concluded that the nearest stars are about 100,000 times the distance from Earth to the sun, about 10 trillion miles away. Newton's calculation is contained in a short section of his *Principia* titled simply "On the distance of the stars."

Newton's estimate of the distance to nearby stars was larger than any distance imagined before in human history. Even today, nothing in our experience allows us to relate to it. The fastest most of us have traveled is about 500 miles per hour, the cruising speed of a jet. If we set out for the nearest star beyond our solar system at that speed, it would take us about 5 million years to reach our destination. If we traveled in the fastest rocket ship ever manufactured on Earth, the trip would last 100,000 years, at least a thousand human life spans.

But even the distance to the nearest star is dwarfed by the measurements made in the early twentieth century by Henrietta Leavitt, an astronomer at the Harvard College Observatory. In 1912, she devised a new method for determining the distances to faraway stars. Certain stars, called Cepheid variables, were known to oscillate in brightness. Leavitt discovered that the cycle times of such stars are closely related to their intrinsic luminosities. More luminous stars have longer cycles. Measure the cycle time of such a star and you know its intrinsic luminosity. Then, by comparing its intrinsic luminosity with how bright it appears in the sky, you can infer its distance, just as you could gauge the distance to an approaching car at night if you knew the wattage of its headlights. Cepheid variables are scattered throughout the cosmos. They serve as cosmic distance signs in the highway of space.

Using Leavitt's method, astronomers were able to determine the size of the Milky Way, a giant congregation of about 200 billion stars. To express such mind-boggling sizes and distances, twentieth-century astronomers adopted a new unit called the light-year, the distance that light travels in a year—about 6 trillion miles. The nearest stars are several light-years away. The diameter of the Milky Way has been measured at about 100,000 light-years. In other words, it takes a ray of light 100,000 years to travel from one side of the Milky Way to the other.

There are galaxies beyond our own. They have names like Andromeda (one of the nearest), Sculptor, Messier 87, Malin 1, IC 1101. The average distance between galaxies, again determined by Leavitt's method, is about twenty galactic diameters, or 2 million light-years. To a giant cosmic being leisurely strolling through the universe

and not limited by distance or time, galaxies would appear as illuminated mansions scattered about the dark countryside of space. As far as we know, galaxies are the largest objects in the cosmos. If we sorted the long inventory of material objects in nature by size, we would start with subatomic particles like electrons and end up with galaxies.

Over the past century, astronomers have been able to probe deeper and deeper into space, looking out to distances of hundreds of millions of light-years and farther. A question naturally arises: Could the physical universe be unending in size? That is, as we build bigger and bigger telescopes sensitive to fainter and fainter light, will we continue to see objects farther and farther away—like the third emperor of the Ming Dynasty, Yongle, who surveyed his new palace in the Forbidden City and walked from room to room to room, never reaching the end?

Here we must take into account a curious relationship between distance and time. Because light travels at a fast (186,000 miles per second) but not infinite speed, when we look at a distant object in space we must remember that a significant amount of time has passed between the emission of the light and the reception at our end. The image we see is what the object looked like when it emitted that light. If we look at an object 186,000 miles away, we see it as it appeared one second earlier; at 1,860,000 miles away, we see it as it appeared ten seconds earlier; and so on. For extremely distant objects, we see them as they were millions or billions of years in the past.

Now the second curiosity. Since the late 1920s we have known that the universe is expanding, and that as it does so it is thinning out and cooling. By measuring the current rate of expansion, we can make good estimates of the moment in the past when the expansion began—the Big Bang—which was about 13.7 billion years ago, a time when no planets or stars or galaxies existed and the entire universe consisted of a fantastically dense nugget of pure energy. No matter how big our telescopes, we cannot see beyond the distance light has traveled since the Big Bang. Farther than that, and there simply hasn't been enough time since the birth of the universe for light to get from there to here. This giant sphere, the maximum distance we can see, is only the observable universe. But the universe could extend far beyond that.

In his office in Santa Cruz, Garth Illingworth and his colleagues have mapped out and measured the cosmos to the edge of the observable universe. They have reached out almost as far as the laws of physics allow. All that exists in the knowable universe—oceans and sky; planets and stars; pulsars, quasars, and dark mat-

ter; distant galaxies and clusters of galaxies; and great clouds of star-forming gas—has been gathered within the cosmic sensorium gauged and observed by human beings.

“Every once in a while,” says Illingworth, “I think: By God, we are studying things that we can never physically touch. We sit on this miserable little planet in a mid-size galaxy and we can characterize most of the universe. It is astonishing to me, the immensity of the situation, and how to relate to it in terms we can understand.”

The idea of Mother Nature has been represented in every culture on Earth. But to what extent is the new universe, vastly larger than anything conceived of in the past, part of nature? One wonders how connected Illingworth feels to this astoundingly large cosmic terrain, to the galaxies and stars so distant that their images have taken billions of years to reach our eyes. Are the little red dots on his maps part of the same landscape that Wordsworth and Thoreau described, part of the same environment of mountains and trees, part of the same cycle of birth and death that orders our lives, part of our physical and emotional conception of the world we live in? Or are such things instead digitized abstractions, silent and un-touchable, akin to us only in their (hypothesized) makeup of atoms and molecules? And to what extent are we human beings, living on a small planet orbiting one star among billions of stars, part of that same nature?

The heavenly bodies were once considered divine, made of entirely different stuff than objects on Earth. Aristotle argued that all matter was constituted from four elements: earth, fire, water, and air. A fifth element, ether, he reserved for the heavenly bodies, which he considered immortal, perfect, and indestructible. It wasn't until the birth of modern science, in the seventeenth century, that we began to understand the similarity of heaven and Earth. In 1610, using his new telescope, Galileo noted that the sun had dark patches and blemishes, suggesting that the heavenly bodies are not perfect. In 1687, Newton proposed a universal law of gravity that would apply equally to the fall of an apple from a tree and to the orbits of planets around the sun. Newton then went further, suggesting that all the laws of nature apply to phenomena in the heavens as well as on Earth. In later centuries, scientists used our understanding of terrestrial chemistry and physics to estimate how long the sun could continue shining before depleting its resources of energy; to determine the chemical composition of stars; to map out the formation of galaxies.

Yet even after Galileo and Newton, there remained another question: Were living things somehow different from rocks and water and stars? Did animate and inani-

mate matter differ in some fundamental way? The “vitalists” claimed that animate matter had some special essence, an intangible spirit or soul, while the “mechanists” argued that living things were elaborate machines and obeyed precisely the same laws of physics and chemistry as did inanimate material. In the late nineteenth century, two German physiologists, Adolf Eugen Fick and Max Rubner, each began testing the mechanistic hypothesis by painstakingly tabulating the energies required for muscle contraction, body heat, and other physical activities and comparing these energies against the chemical energy stored in food. Each gram of fat, carbohydrate, and protein had its energy equivalent. Rubner concluded that the amount of energy used by a living creature was exactly equal to the energy it consumed in its food. Living things were to be viewed as complex arrangements of biological pulleys and levers, electric currents, and chemical impulses. Our bodies are made of the same atoms and molecules as stones, water, and air.

And yet many had a lingering feeling that human beings were somehow separate from the rest of nature. Such a view is nowhere better illustrated than in the painting *Tallulah Falls* (1841), by George Cooke, an artist associated with the Hudson River School. Although this group of painters celebrated nature, they also believed that human beings were set apart from the natural world. Cooke’s painting depicts tiny human figures standing on a small promontory above a deep canyon. The people are dwarfed by tree-covered mountains, massive rocky ledges, and a waterfall pouring down to the canyon below. Not only insignificant in size compared with their surroundings, the human beings are mere witnesses to a scene they are not part of and never could be. Just a few years earlier, Ralph Waldo Emerson had published his famous essay “Nature,” an appreciation of the natural world that nonetheless held humans separate from nature, at the very least in the moral and spiritual domain: “Man is fallen; nature is erect.”

Today, with various back-to-nature movements attempting to resist the dislocations brought about by modernity, and with our awareness of Earth’s precarious environmental state ever increasing, many people feel a new sympathy with the natural world on this planet. But the gargantuan cosmos beyond remains remote. We might understand at some level that those tiny points of light in the night sky are similar to our sun, made of atoms identical to those in our bodies, and that the cavern of outer space extends from our galaxy of stars to other galaxies of stars, to distances that would take light billions of years to traverse. We might understand these discoveries in intellectual terms, but they are baffling abstractions, even disturbing, like the notion that each of us once was the size of a dot, without mind or thought. Science has vastly expanded the scale of our cosmos, but our

emotional reality is still limited by what we can touch with our bodies in the time span of our lives. George Berkeley, the eighteenth-century Irish philosopher, argued that the entire cosmos is a construct of our minds, that there is no material reality outside our thoughts. As a scientist, I cannot accept that belief. At the emotional and psychological level, however, I can have some sympathy with Berkeley's views. Modern science has revealed a world as far removed from our bodies as colors are from the blind.

Very recent scientific findings have added yet another dimension to the question of our place in the cosmos. For the first time in the history of science, we are able to make plausible estimates of the rate of occurrence of life in the universe. In March 2009, NASA launched a spacecraft called Kepler whose mission was to search for planets orbiting in the "habitable zone" of other stars. The habitable zone is the region in which a planet's surface temperature is not so cold as to freeze water and not so hot as to boil it. For many reasons, biologists and chemists believe that liquid water is required for the emergence of life, even if that life may be very different from life on Earth. Dozens of candidates for such planets have been found, and we can make a rough preliminary calculation that something like 3 percent of all stars are accompanied by a potentially life-sustaining planet. The totality of living matter on Earth—humans and animals, plants, bacteria, and pond scum—makes up 0.00000001 percent of the mass of the planet. Combining this figure with the results from the Kepler mission, and assuming that all potentially life-sustaining planets do indeed have life, we can estimate that the fraction of stuff in the visible universe that exists in living form is something like 0.0000000000000001 percent, or one millionth of one billionth of 1 percent. If some cosmic intelligence created the universe, life would seem to have been only an afterthought. And if life emerges by random processes, vast amounts of lifeless material are needed for each particle of life. Such numbers cannot help but bear upon the question of our significance in the universe.

Decades ago, when I was sailing with my wife in the Aegean Sea, in the midst of unending water and sky, I had a slight inkling of infinity. It was a sensation I had not experienced before, accompanied by feelings of awe, fear, sublimity, disorientation, alienation, and disbelief. I set a course for 255°, trusting in my compass—a tiny disk of painted numbers with a sliver of rotating metal—and hoped for the best. In a few hours, as if by magic, a pale ocher smidgen of land appeared dead ahead, a thing that drew closer and closer, a place with houses and beds and other human beings.



# ON FREE WILL

*And how the brain is like a colony of ants by Edward O. Wilson from the September 2014 issue of Harper's*

Neuroscientists who work on the human brain seldom mention free will. Most consider it a subject better left, at least for the time being, to philosophers. Meanwhile, their sights are set on discovering the physical basis of consciousness, of which free will is a part. No scientific quest is more important to humanity. Everyone — scientists, philosophers, and religious believers alike — can agree with the neurobiologist Gerald Edelman that “[c]onsciousness is the guarantor of all we hold human and precious. Its permanent loss is considered equivalent to death, even if the body persists in its vital signs.”

The physical basis of consciousness won't be an easy phenomenon to grasp. The human brain is the most complex system, either organic or inorganic, known in the universe. Each of the billions of nerve cells (neurons) composing its functional part forms synapses and communicates with an average of ten thousand others; each launches messages along its own axon pathway using an individual digital code of membrane-firing patterns. The brain is organized into regions, nuclei, and staging centers that divide functions among them. These regions respond in different ways to hormones and sensory stimuli originating from outside the brain, while sensory and motor neurons all over the body communicate so intimately with the brain as to be virtually a part of it.

Of the 20,000 to 25,000 genes in the human genome, half participate in some manner in the prescription of the brain-mind system. This amount of commitment has resulted from the most rapid evolutionary change known in any advanced organ system of the biosphere. It entailed a more than twofold increase in brain size across 3 million years, from 600 cubic centimeters in the australopith prehuman ancestor to 900 cubic centimeters in *Homo habilis*, thence to about 1,400 cubic centimeters in modern *Homo sapiens*.

Philosophers have labored for more than two thousand years to explain consciousness. Innocent of biology, however, they have for the most part gotten nowhere. I don't believe it too harsh to say that the history of philosophy when boiled down consists mainly of failed models of the brain. A few contemporary neurophiloso-

phers, such as Patricia Churchland and Daniel Dennett, have made splendid efforts to interpret neuroscience research as it has become available. They have helped to demonstrate, for example, the ancillary nature of morality and rational thought. Others, especially those of poststructuralist bent, are more retrograde. They doubt that the “reductionist” or “objectivist” program of brain researchers will ever succeed in explaining the core of consciousness. Even if it has a material basis, subjectivity in this view is beyond the reach of science. To make their argument, the mysterians (as they are sometimes called) point to the qualia — the subtle, almost inexpressible feelings we experience about sensory input. For example, “red” we know from physics, but what are the deeper sensations of “redness”? And if we can’t answer that, then what can scientists ever hope to tell us on a larger scale about free will or about the soul?

Neuroscientists, to their credit, have no illusions about the difficulty of the task. They agree with Darwin that the mind is a citadel that cannot be taken by frontal assault. They have set out instead to break through to its inner recesses with multiple probes along the ramparts, opening breaches here and there; by technical ingenuity and force they hope to enter and explore wherever they find space to maneuver.

You have to have faith to be a neuroscientist. We don’t know where consciousness and free will may be hidden — assuming they even exist as integral processes and entities. Meanwhile, neuroscience has grown rich, primarily because of its relevance to medicine. Its research projects are growing on budgets of hundreds of millions to billions each year (in the science trade it’s called Big Science). The same surge has occurred in cancer research, in designing the space shuttle, and in experimental particle physics.

Perhaps, then, a direct assault is possible after all. The Brain Activity Map (BAM) Project, led by the National Institutes of Health, has the goal of generating a map of the activity of every neuron in real time. The program, if successfully funded, will parallel in magnitude the Human Genome Project. Much of the technology will have to be developed on the job.

The basic goal of activity mapping is to connect all of the processes of thought — rational and emotional; conscious, preconscious, and unconscious; held still and moving through time — to a physical base. It won’t come easy. Bite into a lemon, fall into bed, recall a departed friend, watch the sun sink beyond the western sea. Each episode comprises mass neuronal activity so elaborate we cannot even conceive of it, much less write it down as a repertory of firing cells.

Assuming that BAM or another, similar enterprise is successful, how might it solve the riddle of consciousness and free will? I believe that the solution will come relatively early, rather than as a grand finale when the map is complete. There are several reasons for optimism. First, the increase in brain size leading up from the habiline prehumans to Homo sapiens suggests that consciousness evolved in steps, similar to the way other complex biological systems developed — the eukaryotic cell, for example, or the animal eye, or colonial life in insects.

It should then be possible to track the steps leading to human consciousness through studies of animal species that have come partway to the human level. The mouse has been useful in early brain-mapping research and will continue to be productive. This species has considerable technical advantages, including convenient laboratory rearing (for a mammal) and a strong supporting foundation of prior genetic and neuroscientific research. A closer approach to the actual sequence can be made, however, by studying humanity's closest phylogenetic relatives among primates, from lemurs and galagos at the more primitive end to rhesus macaques and chimpanzees at the higher end. The comparison would reveal which neural circuits and activities were attained by non-human species, when they attained them, and in what sequence. That data could help us determine which neurobiological traits are uniquely human.

The second point of entry into the realm of consciousness and free will is the identification of emergent phenomena — entities and processes that come into existence only with the joining of preexisting entities and processes. They will be found, if the results of current research are indicative, in the linkage and synchronized activity of various parts of both the sensory system and the brain.

The nervous system can be usefully conceived as a superbly well-organized superorganism built on a division of labor and specialization in the society of cells — around which the body plays a primarily supportive role. An analog, if you will, is to be found in a queen ant's or termite's relationship with her supporting swarm of workers. Each worker on its own is relatively stupid. It follows a program of blind, untutored instinct, which is subject to only a small amount of flexibility in its expression. The program directs the worker to specialize in one or two tasks at a time and to change programs in a particular sequence — typically nurse to builder or guard to forager — as it ages. All the workers together, however, are brilliant. They address all needed tasks simultaneously and can shift the weight of their effort to meet potentially lethal emergencies, such as flooding, starvation, and attacks by enemy colonies.

The superorganism that is our brain also takes advantage of the narrowness of the range of human perception. Our sight, hearing, and other senses impart the feeling that we are aware of almost everything around us in both space and time. Yet we are aware of only minute slivers of space-time, and even less of the energy fields in which we exist. The conscious mind is a map of our awareness of the intersections of those parts of the continua we happen to occupy. It allows us to see and know those events that most affect our survival in the real world — or, more precisely, the real world in which our prehuman ancestry evolved. To understand sensory information and the passage of time is to understand a large part of consciousness itself. Advance in this direction might prove easier than previously assumed.

The final reason for optimism is the human necessity for confabulation, which offers more evidence of a material basis to consciousness. Our minds consist of storytelling. In each instant, a flood of information flows into our senses, more than the brain can process. To augment the fraction of this information, we summon the stories of past events for context and meaning. We compare the past and the present and apply the decisions that were made previously, variously right or wrong. Then we look forward, creating — not just recalling this time — multiple competing scenarios. These are weighed against one another by the suppressing or intensifying effect imposed by aroused emotional centers. A choice is made in the unconscious centers of the brain, recent studies tell us, several seconds before the decision arrives in the conscious part.

Conscious mental life is built entirely from confabulation. It is a constant review of stories experienced in the past and competing stories invented for the future. By necessity, most conform to the present real world. Memories of past episodes are repeated for pleasure, for rehearsal, for planning, or for various combinations of the three. Some of the memories are altered into abstractions and metaphors, the higher generic units that increase the speed and effectiveness of the conscious process.

Most conscious activity contains elements of social interactions. We are fascinated by the histories and emotional responses of others. We play games, both imaginary and real, based on the reading of intention and probable response. Sophisticated stories at this level require a big brain housing vast memory banks. In the human world, that capacity evolved long ago as an aid to survival.

If consciousness has a material basis, can the same be true for free will? Put another way: What, if anything, in the manifold activities of the brain could possibly pull away from the brain's machinery to create scenarios and make decisions of

its own? The answer is, of course, the self. And what would that be? Where is it? The self does not exist as a paranormal being living on its own within the brain. It is, instead, the central dramatic character of the confabulated scenarios. In these stories, it is always on center stage — if not as participant, then as observer and commentator — because that is where all of the sensory information arrives and is integrated. The stories that compose the conscious mind cannot be taken away from the mind's physical neurobiological system, which serves as script writer, director, and cast combined. The self, despite the illusion of its independence created in the scenarios, is part of the anatomy and physiology of the body.

The power to explain consciousness, however, will always be limited. Suppose neuroscientists somehow successfully learned all of the processes of one person's brain in detail. Could they then explain the mind of that individual? No, not even close. It would require opening up the immense store of the brain's particular memories, both those images and events available to immediate recall and those buried deep in the unconscious. And if such a feat were possible, even in a limited way, its accomplishment would modify the memories and the emotional centers that respond to those memories, causing a new mind to emerge.

Then there is the element of chance. The body and brain are made up of legions of communicating cells, which shift in discordant patterns that cannot even be imagined by the conscious minds they compose. The cells are bombarded every instant by outside stimuli unpredictable by human intelligence. Any one of these events can entrain a cascade of changes in local neural patterns, and scenarios of individual minds changed by them are all but infinite in detail. The content is dynamic, changing instant to instant in accordance with the unique history and physiology of the individual.

Because the individual mind cannot be fully described by itself or by any separate researcher, the self — celebrated star player in the scenarios of consciousness — can go on passionately believing in its independence and free will. And that is a very fortunate Darwinian circumstance. Confidence in free will is biologically adaptive. Without it, the conscious mind, at best a fragile, dark window on the real world, would be cursed by fatalism. Like a prisoner serving a life sentence in solitary confinement, deprived of any freedom to explore and starving for surprise, it would deteriorate.

So, does free will exist? Yes, if not in ultimate reality, then at least in the operational sense necessary for sanity and thereby for the perpetuation of the human species.

# SUGAR ON THE BRAIN

*David Kohn*

I know that I shouldn't feed my two daughters, who are eight and twelve, dinner at 7:30. It's too late. But my wife and I are overscheduled and sometimes it just happens. And so, a few weeks ago, faced with yet another late meal, my younger daughter fell into one of those anger vortices. Annoyed at a perceived inequity in chore distribution, she slammed my glass of soda onto the counter, somewhat inadvertently splattering the liquid onto the floor and me. She told me, "You're not being nice! You're being a stupid old parent who knows nothing!" Maybe so: when these evening outbursts occur, I feel responsible. After all, as a parent I'm supposed to provide them with timely calories.

Shortly after this particular blowup, I came across a study in which men and women stuck pins—sometimes many pins—into voodoo dolls as a measure of their resentment and annoyance with their spouses. The researchers found that the subjects were more likely to stick in lots of pins when their glucose level was low. I was intrigued—the findings seemed to illuminate my experience with my kids (and people in general), and offered a clear solution: eat regularly, enhance self-control. My response was common, I think, because the study got a lot of attention—stories on the "Today" show, ABC News, NPR, and lots of newspapers around the world. Part of the study's appeal is its obviousness: anyone with kids, or a partner or friends or any level of self-awareness, probably knows on some level that hunger begets irritability. It's somehow comforting when science confirms what we already know, as if the researchers are just now catching up to our common sense.

"Self-control is a limited resource," says the Ohio State psychologist Brad Bushman, who led the study. "With less glucose the brake on self-control is weakened." He notes that his research has found that diabetics, who have trouble keeping their blood sugar levels stable, tend to have higher-than-average levels of aggression—in other words, a paucity of self-control. He recommends eating regularly to insure that self-control doesn't flag. The glucose theory had its origins with a well-known (at least in the field) 2007 study in which subjects were given lemonade flavored with sugar or Splenda, which tastes sweet but doesn't increase blood glucose. In an experiment that tested self-control by asking people to keep their focus during a difficult mental task, the people who drank sugary lemonade did better than those who drank the lemonade with Splenda.

But do we really know what we think we know about blood sugar and the brain?

For years, the University of Pennsylvania psychology researcher Robert Kurzban has been watching the glucose theory garner positive press. He finds this deeply frustrating. “It’s a very entertaining idea,” he says, “but as a scientist I feel like we should think about whether it is correct.” His views on that question are clear: the glucose theory is, he says, “simplistic and implausible.” The idea, Kurzban and other respected scientists argue, doesn’t reflect the reality of how the brain works or how humans have evolved.

He and other doubters don’t deny that hunger affects mood. This is obvious, they say. But it doesn’t prove that glucose fuels self-control, or that low glucose causes a malfunction of self-control. For one, Kurzban told me, the brain rarely runs short of glucose. Although it

uses more calories than most other organs, the brain doesn’t consume that much energy—a little more than ten calories an hour. In a study published in 2012, the Northwestern University social psychologist Daniel Molden found that mental activity doesn’t consume extra glucose. This indicates that self-control probably doesn’t depend on calorie levels. Molden and others that I talked to also say that self-control is a complex behavior that involves many brain areas working in concert. “The idea of a simple one-stop explanation for self-control is flawed on so many levels,” says Chris Beedie, a psychology researcher at Aberystwyth University, in Wales. “The brain is not a simple machine.”

And because the brain is indispensable to survival, we have evolved so that gray matter continues to receive a steady supply of energy even when we run short of calories. Studies have found that in people who are starving, the brain is among the last organs to lose mass. “The brain is rarely in a situation where it doesn’t have enough glucose,” says Beedie. “If the brain doesn’t have enough, that’s a fairly serious situation.”

Beedie, who studies the psychology of how athletes reach maximum performance, pointed to the London Marathon as a good example of how the brain protects itself. “At the end of the race, all of these runners have low levels of glucose. That’s almost forty thousand people,” he says. “But you don’t see a mass loss of self-control.”

Marathons haven’t been the only situations in which humans get really low on energy. Michael McCullough, a psychologist at the University of Miami, says that for most of the two hundred thousand or so years that humans have been on earth, lack of food has been a regular part of their experience. Not occasional dinner-is-an-hour-late hunger, but weeks or months of profound, gnawing deprivation.

Nearly every traditional society ever studied endures this. It is very unlikely, he argues, that evolution would have allowed for the survival of a species that easily

loses control when it gets hungry.

“We have three weeks of food in our kitchens,” McCullough says. “But that’s not how we evolved. It doesn’t make sense that cognition is so fragile that two hours after your last meal, thinking goes haywire. I don’t think natural selection would have been kind to humans whose brains shut down whenever they got hungry.”

I asked him how he would explain my kids’ tendency to insurrection when they’re hungry. “I am perfectly willing to believe that hunger is linked to angry outbursts in your kids,” he said. “If a child or animal is running low on blood glucose, it will act differently.” But this, he points out, does not prove that glucose regulates self-control. The change in behavior could be a direct, perhaps unconscious, way to signal hunger. (If that’s true, the strategy works, at least in our house. Outbursts usually lead to a pre-dinner snack.) Or it may be a vestigial sign that the organism is sick of being hungry, and is getting ready to go find some food on its own.

Kurzban notes that many animals get more aggressive when they’re hungry, but not because they have lost self-control. Their behavior is a rational choice to more pursue food in a more zealous way, he says: “I think the link between hunger and aggression is an artifact from our evolutionary past.”

The Princeton neuroscientist Matthew Botvinick sees lack of glucose as just one reason among many that we become unglued. He says that we should think of hunger not as a lack of fuel, but as an unpleasant state, no different from other such states: having a headache, doing a tedious chore, having to stay late at work. Such experiences tax us, and thus make us less willing to devote energy to regulating our moods and responses. Molden says that the distinction is crucial. It’s not that we are unable to control ourselves because we’ve run out of fuel; it’s

that we choose not to control ourselves because we’re less willing to do so. So when his eight-year-old son starts acting out, Molden focusses not on calories but on persuasion. “I try to engage him,” he says. “I acknowledge his lack of motivation to behave. I say ‘I know you don’t feel like doing this. But if you do what you have to, you can do what you want.’”

To be fair, even the proponents of the glucose idea agree that self-control is multifaceted and not solely regulated by glucose. But to Molden, giving so much weight to glucose can lead to flawed strategies for activating self-control in real life. It minimizes the fact that humans, with their big, complex brains, have a unique ability to direct their own behavior and override their own impulses. “You can’t throw fuel at self-control problems,” he says. “Talking about motivation, helping people focus, that’s not easy, but it can work. It is much more effective than giving people snacks.”



# Food Combining Tips

	Balancing Foods	Avoid/Reduce
<p>Fruits</p> <p>Fruits and fruit juices are best consumed by themselves for all doshas.</p> <p>Soak all dried fruits except in cases where Kapha is high.</p> <p>Adding spices to fruits or stewing them in a little water helps their digestibility during the colder seasons or times of illness.</p>	<p>Sweet fruits</p> <p>Apples, sweet</p> <p>Apricots, sweet</p> <p>Avocado*</p> <p>Berries, sweet</p> <p>Cherries, sweet</p> <p>Coconut</p> <p>Dates</p> <p>Figs, fresh and dry</p> <p>Grapes, sweet</p> <p>Mango, ripe</p> <p>Melons</p> <p>Most dried fruit, soaked</p> <p>Oranges, sweet*</p> <p>Pears</p> <p>Persimmon</p> <p>Pineapple, sweet</p> <p>Plums, sweet</p> <p>Pomegranate</p> <p>Prunes</p> <p>Raisins (omit in case of candida)</p> <p>Watermelon</p>	<p>Sour fruits</p> <p>Apples, sour</p> <p>Frozen fruits or fruits with added sugar</p> <p>Bananas</p> <p>Cherries, sour</p> <p>Cranberries</p> <p>Grapefruit</p> <p>Kiwi**</p> <p>Lemon*</p> <p>Lime**</p> <p>Oranges, sour</p> <p>Papaya</p> <p>Peaches**</p> <p>Pineapple, sour</p> <p>Plums, sour</p> <p>Rhubarb</p> <p>Soursop</p> <p>Strawberries*</p>

<p>Oils</p> <p>Only cook with ghee for medium high temperatures, and sesame, sunflower or olive oil for low temperatures.</p> <p>Do not cook other oils.</p>	<p>Cold-pressed, from a health food store, and in moderation:</p> <p>Avocado*</p> <p>Coconut (for massage)</p> <p>Sunflower</p> <p>Flax**</p> <p>Olive</p> <p>Sesame*</p>	<p>Butter, salted</p> <p>Cheeses of all kinds</p> <p>Buttermilk</p> <p>Cow Milk</p> <p>Ice Cream</p> <p>Sour Cream</p> <p>Yogurt (undiluted)</p>
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<p>Grains</p> <p>Grains combine well with high and low starch vegetables, as well as most legumes, such as split mung beans and aduki beans.</p> <p>They do not combine with high protein (tofu, dairy, nuts, flesh foods).</p>	<p>Amaranth** Barley Kamut** Oat bran* Oats, cooked Popcorn** Quinoa* Rice, brown** Rice, white basmati Rice cakes* Spelt Teff* Wild rice**</p>	<p>Frozen, dried, canned or micro-waved vegetables Pungent or pickled vegetables Bell pepper* Daikon radish** Eggplant Fenugreek greens Garlic, raw or cooked Horseradish Olives, green Onions, raw Peppers, hot Potatoes (all varieties) Pumpkin** Radish Shallots Spinach** Tomatoes Turnips Turnip Greens** Watercress*</p>
<p>Animal Foods</p> <p>If you still eat animal foods, be sure to combine them with low starch vegetables only.</p> <p>Avoid combining animal foods with dairy, oils, or high starch vegetables or grains (potatoes, rice, breads, pasta).</p>	<p>A portion no larger than the size and width of the palm of your hand:</p> <p>Chicken or turkey, white meat Egg white Rabbit</p>	<p>Cold, dry, puffed cereals Refined, frozen or microwaved products Buckwheat Corn Granola Millet Oats, dry Rye Wheat Wheat bran</p>
<p>Legumes</p> <p>Legumes and beans combine with low and high starch vegetables. When combined with grains (in the same meal or in the same day), they form a complete protein.</p> <p>Since soy beans and tofu are considered high protein, they combine with low starch vegetables only.</p> <p>Soak and cook all beans very well.</p> <p>Tofu is best steamed, baked or scrambled/ stir-fried (with broth or water rather than oil).</p>	<p>Aduki Beans Black Beans Black-eyed Peas Chana Dal Common Lentils Garbanzos* Lima Beans Khala Chana Mung beans, whole Navy Beans Pinto Beans Soy Milk, boiled Split Mung Beans (available at the Herb and Spice on Bank St.) Split Peas Tempeh Tepery Beans Tofu, cooked White Beans</p>	<p>Beef Duck Freshwater fish** Lamb Pork Seafood Shrimp Venison**</p>

<p>Nuts</p> <p>Avoid combining nuts with other protein foods.</p> <p>Eat only a small portion at a time.</p>	<p>In moderation:</p> <p>Almonds, soaked overnight and skins removed** Homemade almond milk Coconut</p>	<p>Black Lentils Kidney Beans** Red Lentils Soy Beans** Cold Soy Milk Soy Cheese Soy Flour** Soy Margarine Soy Powder** Soy Yogurt Tempeh Tofu, cold or raw Tur Dal Urud dal</p>
<p>Seeds</p> <p>Avoid combining seeds with other protein foods.</p>	<p>Pumpkin* Sunflower</p>	<p>Black Walnuts** Brazil Nuts Cashew Coconut English Walnu*** Filberts Macadamia Nuts Peanuts Pecans** Pine Nuts Pistachios</p>
<p>Dairy</p> <p>Choose dairy that is fresh, organic, and hormone-free. Make your own cheeses and yogurt.</p> <p>Avoid if suffering from respiratory illness, congestion or water retention.</p>	<p>Ghee (Clarified Butter)* Goat Milk, fresh Cottage cheese, fresh and unsalted Diluted Yogurt, fresh (1:2 parts or more with water) Fresh homemade, unsalted goat cheese** Unsalted butter**</p>	<p>Ajwan Allspice Almond extract* Amchoor Anise Bay leaf Black pepper* Caraway Cayenne Cloves Fenugreek Garlic Ginger, dry Horseradish Marjoram Mustard seeds** Nutmeg Onion Paprika Pippali* Rosemary Sage Savory Star Anise Tamarind</p>

<p>Sweeteners Avoid if candida is high, and avoid/reduce if healing from illness.</p>	<p>Barley Malt Syrup Brown Rice Syrup Fructose Fruit Juice Concentrates, esp. Pear and Apricot Stevia Maple Syrup (in excess) Sucanat* Sugar Cane Juice*</p>	<p>Chia** Flax** Psyllium Sesame**</p>
<p>Vegetables</p> <p>For proper digestion and nutrient absorption, combine low starch vegetables (leafy greens, broccoli, carrots, etc.) with either grains or high protein (tofu, dairy, nuts, flesh foods).</p> <p>Combine high starch vegetables (carrots, squash, etc.) with grains, but not with high protein.</p>	<p>Acorn Squash Artichoke Arugula* Asparagus Bean sprouts Beets** Beet greens Broccoli Bok Choy Brussels Sprouts Burdock Root Butternut Squash Cucumber Fennel Cabbage Carrots* Cauliflower Celery Collard greens Fresh Corn Dandelion greens Green Beans Jerusalem Artichoke Jicama Kale Kohlrabi* Leafy Greens of all kinds Leeks, cooked** Lettuce Mushrooms (shitake only)** Okra Olives, black** Onions (cooked)* Parsley Parsnip Peas Radicchio Rutabaga Snow peas Spaghetti Squash Sprouts of all kinds Summer Squash Sweet potatoes Swiss Chard Winter Squash Zucchini*</p>	<p>Jaggery Molasses Raw Honey** (do not cook/bake honey) White Sugar</p>

<p>Beverages</p> <p>It is best to drink between meals (up to 30 min prior and 2 hours after eating), so as not to dilute digestive and enzymatic juices.</p> <p>Beverages are the most energizing when freshly made, rather than from bottled/frozen juices and drinks. When fresh is not possible, unsweetened and bottled is preferable to frozen.</p> <p>As much as possible, consume all beverages at room temperature. Cold drinks will weaken digestion.</p> <p>Dilute fruit juices 1:1 with water and drink in moderation</p>	<p>Aloe vera juice*</p> <p>Apricot juice</p> <p>Berry juice, sweet</p> <p>Carob</p> <p>Cherry juice, sweet</p> <p>Coconut milk</p> <p>Goat milk</p> <p>Grain beverages</p> <p>Grape juice</p> <p>Mango juice</p> <p>Miso broth**</p> <p>Hot spiced Goat milk*</p> <p>Pear juice</p> <p>Pomegranate juice</p> <p>Prune juice</p> <p>Hot Herbal Teas</p>	<p>Deep fried foods and rancid or unidentified oils</p> <p>Almond</p> <p>Apricot</p> <p>Canola</p> <p>Corn</p> <p>Peanut</p> <p>Safflower</p> <p>Soy</p> <p>Walnut</p>
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# WHAT SUFFERING DOES

*Op-Ed by David Brooks in the April 7, 2014 in the New York Times*

Over the past few weeks, I've found myself in a bunch of conversations in which the unspoken assumption was that the main goal of life is to maximize happiness. That's normal. When people plan for the future, they often talk about all the good times and good experiences they hope to have. We live in a culture awash in talk about happiness. In one three-month period last year, more than 1,000 books were released on Amazon on that subject.

But notice this phenomenon. When people remember the past, they don't only talk about happiness. It is often the ordeals that seem most significant. People shoot for happiness but feel formed through suffering.

Now, of course, it should be said that there is nothing intrinsically ennobling about suffering. Just as failure is sometimes just failure (and not your path to becoming the next Steve Jobs) suffering is sometimes just destructive, to be exited as quickly as possible.

But some people are clearly ennobled by it. Think of the way Franklin Roosevelt came back deeper and more empathetic after being struck with polio. Often, physical or social suffering can give people an outsider's perspective, an attuned awareness of what other outsiders are enduring.

But the big thing that suffering does is it takes you outside of precisely that logic that the happiness mentality encourages. Happiness wants you to think about maximizing your benefits. Difficulty and suffering sends you on a different course.

First, suffering drags you deeper into yourself. The theologian Paul Tillich wrote that people who endure suffering are taken beneath the routines of life and find they are not who they believed themselves to be. The agony involved in, say, composing a great piece of music or the grief of having lost a loved one smashes through what they thought was the bottom floor of their personality, revealing an area below, and then it smashes through that floor revealing another area.

Then, suffering gives people a more accurate sense of their own limitations, what they can control and cannot control. When people are thrust down into these deeper zones, they are forced to confront the fact they can't determine what goes on there. Try as they might, they just can't tell themselves to stop

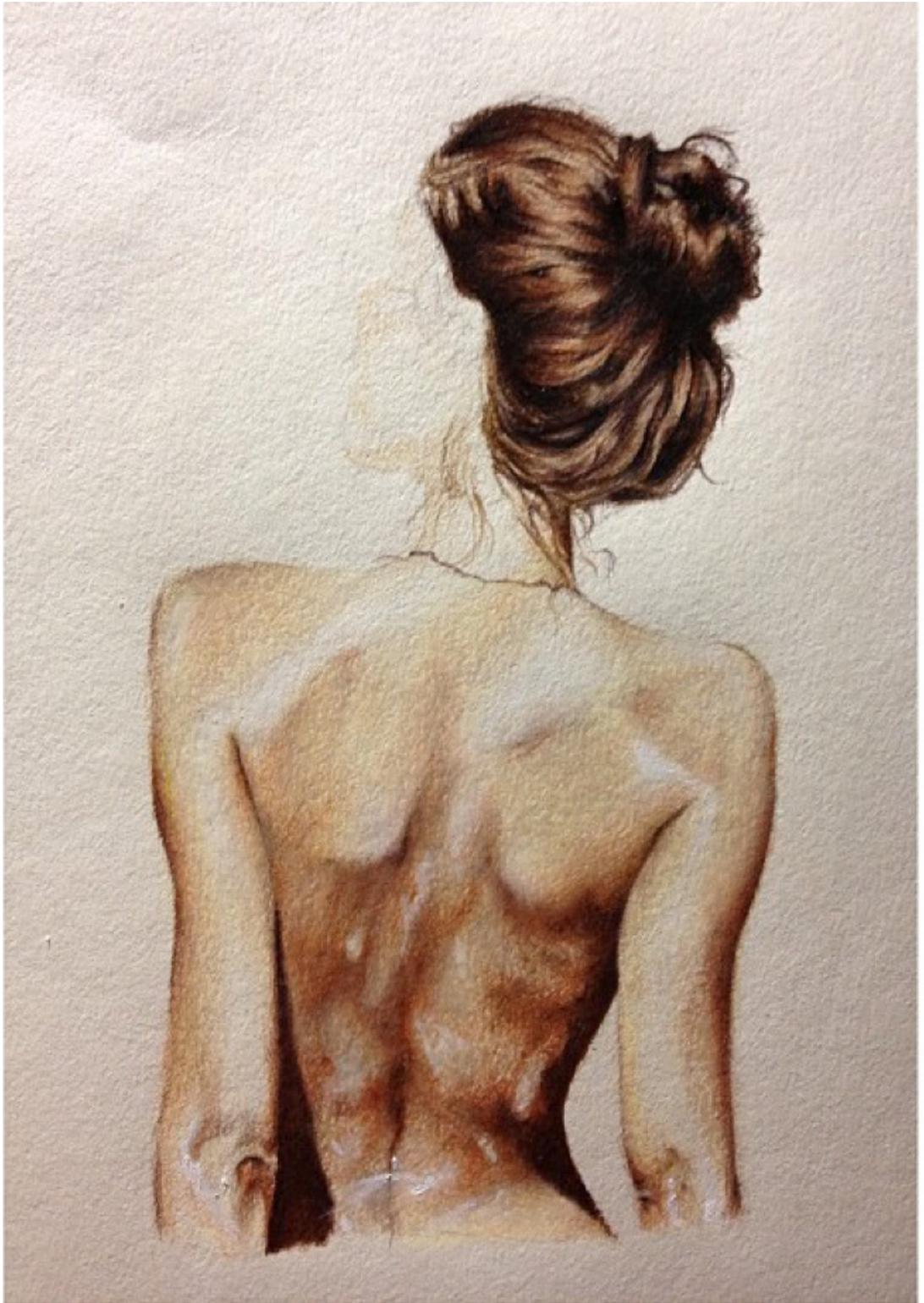
feeling pain, or to stop missing the one who has died or gone. And even when tranquillity begins to come back, or in those moments when grief eases, it is not clear where the relief comes from. The healing process, too, feels as though it's part of some natural or divine process beyond individual control.

People in this circumstance often have the sense that they are swept up in some larger providence. Abraham Lincoln suffered through the pain of conducting a civil war, and he came out of that with the Second Inaugural. He emerged with this sense that there were deep currents of agony and redemption sweeping not just through him but through the nation as a whole, and that he was just an instrument for transcendent tasks.

It's at this point that people in the midst of difficulty begin to feel a call. They are not masters of the situation, but neither are they helpless. They can't determine the course of their pain, but they can participate in responding to it. They often feel an overwhelming moral responsibility to respond well to it. People who seek this proper rejoinder to ordeal sense that they are at a deeper level than the level of happiness and individual utility. They don't say, "Well, I'm feeling a lot of pain over the loss of my child. I should try to balance my hedonic account by going to a lot of parties and whooping it up."

The right response to this sort of pain is not pleasure. It's holiness. I don't even mean that in a purely religious sense. It means seeing life as a moral drama, placing the hard experiences in a moral context and trying to redeem something bad by turning it into something sacred. Parents who've lost a child start foundations. Lincoln sacrificed himself for the Union. Prisoners in the concentration camp with psychologist Viktor Frankl rededicated themselves to living up to the hopes and expectations of their loved ones, even though those loved ones might themselves already be dead.

Recovering from suffering is not like recovering from a disease. Many people don't come out healed; they come out different. They crash through the logic of individual utility and behave paradoxically. Instead of recoiling from the sorts of loving commitments that almost always involve suffering, they throw themselves more deeply into them. Even while experiencing the worst and most lacerating consequences, some people double down on vulnerability. They hurl themselves deeper and gratefully into their art, loved ones and commitments. The suffering involved in their tasks becomes a fearful gift and very different than that equal and other gift, happiness, conventionally defined.



# LOSING OUR TOUCH

*Richard Kearney in the August 30, 2014 issue of the New York Times*

Are we losing our senses? In our increasingly virtual world, are we losing touch with the sense of touch itself? And if so, so what?

I recently had occasion to pose these questions to students in a college class I teach on eros — “from Plato to today.” Not surprisingly, the topic of physical contact and sex came up, and the conversation turned very much to “today.” A number of the students said that they regularly messaged online before having “real contact” with partners, perhaps using online dating and mating services like Match.com, OkCupid, SpeedDate.com and Tinder. They shared messaging acronyms that signaled their level of willingness to have sex, and under what conditions. They admitted to enjoying the relative anonymity of the one-off “hook up,” whose consummation required no preliminary close-quarters courtship rites or flirtation ceremonies, no culinary seduction, no caress, nothing — apart from the eventual “blind rut,” as James Joyce put it — requiring the presence of a functioning, sensitive body.

We noted the rather obvious paradox: The ostensible immediacy of sexual contact was in fact mediated digitally. And it was also noted that what is often thought of as a “materialist” culture was arguably the most “immaterialist” culture imaginable — vicarious, by proxy, and often voyeuristic.

Is today’s virtual dater and mater something like an updated version of Plato’s Gyges, who could see everything at a distance but was touched by nothing? Are we perhaps entering an age of “excarnation,” where we obsess about the body in increasingly disembodied ways? For if incarnation is the image become flesh, excarnation is flesh become image. Incarnation invests flesh; excarnation divests it.

In perhaps the first great works of human psychology, the “De Anima,” Aristotle pronounced touch the most universal of the senses. Even when we are asleep we are susceptible to changes in temperature and noise. Our bodies are always “on.” And touch is the most intelligent sense, Aristotle explained, because it is the most sensitive. When we touch someone or something we are exposed to what we touch. We are responsive to others because we are constantly in touch

with them.

“Touch knows differences,” Aristotle insisted. It is the source of our most basic power to discriminate. The thin-skinned person is sensitive and intelligent; the thick-skinned, coarse and ignorant. Think of Odysseus and the Cyclops, Jacob and Esau. The power of touch. Even the Buddha, when challenged by Mara to reveal his authority, simply touches the ground. Our first intelligence is sensory refinement. And this primal sensibility is also what places us at risk in the world, exposing us to adventure and discovery.

Aristotle was challenging the dominant prejudice of his time, one he himself embraced in earlier works. The Platonic doctrine of the Academy held that sight was the highest sense, because it is the most distant and mediated; hence most theoretical, holding things at bay, mastering meaning from above. Touch, by contrast, was deemed the lowest sense because it is ostensibly immediate and thus subject to intrusions and pressures from the material world. Against this, Aristotle made his radical counterclaim that touch did indeed have a medium, namely “flesh.” And he insisted that flesh was not just some material organ but a complex mediating membrane that accounts for our primary sensings and evaluations.

Tactility is not blind immediacy — not merely sensorial but cognitive, too. Savoring is wisdom; in Latin, wisdom is “sapientia,” from “sapere,” to taste. These carnal senses make us human by keeping us in touch with things, by responding to people’s pain — as when the disguised Odysseus (whose name can be translated as “bearer of pain,”), returning to Ithaca, is recognized by his nursemaid, Eurycleia, at the touch of his childhood scar.

But Aristotle did not win this battle of ideas. The Platonists prevailed and the Western universe became a system governed by “the soul’s eye.” Sight came to dominate the hierarchy of the senses, and was quickly deemed the appropriate ally of theoretical ideas. Western philosophy thus sprang from a dualism between the intellectual senses, crowned by sight, and the lower “animal” senses, stigmatized by touch. And Western theology — though heralding the Christian message of Incarnation (“word made flesh”) — all too often confirmed the injurious dichotomy with its anti-carnal doctrines; prompting Nietzsche’s verdict that Christianity was “Platonism for the people” and “gave Eros poison to drink.” Thus opto-centrism prevailed for over 2,000 years, culminating in our contemporary culture of digital simulation and spectacle. The eye continues to rule in what Roland Barthes once called our “civilization of the image.” The world is no

longer our oyster, but our screen.

For all the fascination with bodies, our current technology is arguably exacerbating our carnal alienation. While offering us enormous freedoms of fantasy and encounter, digital eros may also be removing us further from the flesh. Pornography, for example, is now an industry worth tens of billions of dollars worldwide. Seen by some as a progressive sign of post-60s sexual liberation, pornography is, paradoxically, a twin of Puritanism. Both display an alienation from flesh — one replacing it with the virtuous, the other with the virtual. Each is out of touch with the body.

This movement toward privatization and virtuality is explored in Spike Jonze's recent movie "Her," where a man falls in love with his operating system, which names itself Samantha. He can think of nothing else and becomes insanely jealous when he discovers that his virtual lover, Samantha, is also flirting with thousands of other subscribers. Eventually, Samantha feels so bad for him that she decides to supplement her digital persona with a real body by sending a surrogate lover. But the plan fails miserably — while the man touches the embodied lover he hears the virtual signals of Samantha in his ears and cannot bridge the gap. The split between digital absence and carnal presence is unbearable. Something is missing: love in the flesh.

The move toward excarnation is apparent in what is becoming more and more a fleshless society. In medicine, "bedside manner" and hand on pulse has ceded to the anonymous technologies of imaging in diagnosis and treatment. In war, hand-to-hand combat has been replaced by "targeted killing" via remote-controlled drones. If contemporary warfare renders us invulnerable to those who cannot touch us, can we make peace without a hand to shake? (Think of Mandela-de Klerk or Begin-Sadat).

Moreover, certain cyber engineers now envisage implanting transmission codes in brains so that we will not have to move a finger — or come into contact with another human being — to get what we want. The touch screen replaces touch itself. The cosmos shrinks to a private monitor; each viewer a disembodied self unto itself.

Full humanity requires the ability to sense and be sensed in turn: the power, as Shakespeare said, to "feel what wretches feel" — or, one might also add, what artists, cooks, musicians and lovers feel. We need to find our way in a tactile

world again. We need to return from head to foot, from brain to fingertip, from iCloud to earth. To close the distance, so that eros is more about proximity than proxy. So that soul becomes flesh, where it belongs. Such a move, I submit, would radically alter our “sense” of sex in our digital civilization. It would enhance the role of empathy, vulnerability and sensitivity in the art of carnal love, and ideally, in all of human relations. Because to love or be loved truly is to be able to say, “I have been touched.”

# IN MY LIFE

*AF, December 20, 2011, unearthed from some file somewhere, somewhere*

I will be my love’s best friend and partner in love and adventure and will always be able to be counted on; we will each be worthy of the other’s complete respect

I will be my partner’s best audience and confidant

I will not seek outside counsel or share intimate details with others about our bond; there is no relationship greater than the bond between us — all others come in at a distant second

I will help my love achieve his dreams as we create shared goals to achieve together; I will responsibly pursue my own dreams and be thankful for his support

I will be heard and my love will know my word is truth; I will plainly communicate so that I am understood

I will be an infinitely reliable source of nurturing solace and loving support; I will always be with my love in truth and sweetness

# LOVE STORY

*David Brooks again, from the May 7, 2014 issue of the New York Times*

Eight months ago, I came across a passage in a book that has haunted me since. It was in Michael Ignatieff's biography of Isaiah Berlin, and it concerns a night Berlin spent in Leningrad in 1945. Berlin was hanging out when a friend asked if he'd like to go visit Anna Akhmatova. Not knowing much about her, Berlin said yes.

Twenty years older than Berlin, Akhmatova had been a great pre-revolutionary poet. Since 1925, the Soviets had allowed her to publish nothing. Her first husband had been executed on false charges in 1921. In 1938, her son was taken prisoner. For 17 months, Akhmatova had stood outside his prison, vainly seeking news of him.

Berlin was taken to her apartment and met a woman still beautiful and powerful, but wounded by tyranny and the war. At first, their conversation was restrained. They talked about war experiences and British universities. Visitors came and went.

By midnight, they were alone, sitting on opposite ends of her room. She told him about her girlhood and marriage and her husband's execution. She began to recite Byron's "Don Juan" with such passion that Berlin turned his face to the window to hide his emotions. She began reciting some of her own poems, breaking down as she described how they had led the Soviets to execute one of her colleagues.

By 4 in the morning, they were talking about the greats. They agreed about Pushkin and Chekhov. Berlin liked the light intelligence of Turgenev, while Akhmatova preferred the dark intensity of Dostoyevsky.

Deeper and deeper they talked, baring their souls. Akhmatova confessed her loneliness, expressed her passions, spoke about literature and art. Berlin had to go to the bathroom but didn't dare break the spell. They had read all the same things, knew what the other knew, understood each other's longings. That night, Ignatieff writes, Berlin's life "came as close as it ever did to the still perfection of art." He finally pulled himself away and returned to his hotel. It was 11 a.m. He flung himself on the bed and exclaimed, "I am in love; I am in love."

Today we live in a utilitarian moment. We're surrounded by data and fast-flowing information. "Our reason has become an instrumental reason," as Leon Wieseltier

once put it, to be used to solve practical problems.

The night Berlin and Akhmatova spent together stands as the beau ideal of a different sort of communication. It's communication between people who think that the knowledge most worth attending to is not found in data but in the great works of culture, in humanity's inherited storehouse of moral, emotional and existential wisdom.

Berlin and Akhmatova were from a culture that assumed that, if you want to live a decent life, you have to possess a certain intellectual scope. You have to grapple with the big ideas and the big books that teach you how to experience life in all its richness and make subtle moral and emotional judgments.

Berlin and Akhmatova could experience that sort of life-altering conversation because they had done the reading. They were spiritually ambitious. They had the common language of literature, written by geniuses who understand us better than we understand ourselves.

The night also stands as the beau ideal of a certain sort of bond. This sort of love depends on so many coincidences that it only happens once or twice in a lifetime. Berlin and Akhmatova felt all the pieces fitting amazingly into place. They were the same in many ways. There was such harmony that all the inner defenses fell down in one night.

If you read the poems Akhmatova wrote about that night, you get the impression that they slept together, but, according to Ignatieff, they barely touched. Their communion was primarily intellectual, emotional and spiritual, creating a combination of friendship and love. If friends famously confront the world side by side and lovers live face to face, Berlin and Akhmatova seemed to somehow enact both postures at once. They shared and also augmented each other's understanding.

For Berlin, this night was the most important event of his life. Akhmatova was stuck in the Soviet Union, living under a regime of manipulation, fear and lies. She suffered horrendously for it. The regime decided that she had cavorted with a British spy. She was expelled from the Writer's Union. Her son was thrown into prison. She was desolated but never blamed Berlin, speaking of him fervently and writing movingly about the numinous magic of that night.

I'm old enough to remember when many people committed themselves to this sort of life and dreamed of this sort of communion — the whole Great Books/Big Ideas thing. I am not sure how many people believe in or aspire to this sort of a life today.

**“If you are as interested in sex as you say you are, there is a really lovely book about it in my study — on a top shelf. It’s red, and it’s called **The ABZ of Love,**”**

Kurt Vonnegut wrote to his wife Jane in a 1965 letter



# For Esmé with Love and Squalor

*J.D.Salinger in The New Yorker, April 8, 1950*

Just recently, by air mail, I received an invitation to a wedding that will take place in England on April 18th. It happens to be a wedding I'd give a lot to be able to get to, and when the invitation first arrived, I thought it might just be possible for me to make the trip abroad, by plane, expenses be hanged. However, I've since discussed the matter rather extensively with my wife, a breathtakingly levelheaded girl, and we've decided against it--for one thing, I'd completely forgotten that my mother-in-law is looking forward to spending the last two weeks in April with us. I really don't get to see Mother Grencher terribly often, and she's not getting any younger. She's fifty-eight. (As she'd be the first to admit.)

All the same, though, wherever I happen to be I don't think I'm the type that doesn't even lift a finger to prevent a wedding from flatting. Accordingly, I've gone ahead and jotted down a few revealing notes on the bride as I knew her almost six years ago. If my notes should cause the groom, whom I haven't met, an uneasy moment or two, so much the better. Nobody's aiming to please, here. More, really, to edify, to instruct.

In April of 1944, I was among some sixty American enlisted men who took a rather specialized pre-Invasion training course, directed by British Intelligence, in Devon, England. And as I look back, it seems to me that we were fairly unique, the sixty of us, in that there wasn't one good mixer in the bunch. We were all essentially letter-writing types, and when we spoke to each other out of the line of duty, it was usually to ask somebody if he had any ink he wasn't using. When we weren't writing letters or attending classes, each of us went pretty much his own way. Mine usually led me, on clear days, in scenic circles around the countryside. Rainy days, I generally sat in a dry place and read a book, often just an axe length away from a ping-pong table.

The training course lasted three weeks, ending on a Saturday, a very rainy one. At seven that last night, our whole group was scheduled to entrain for London, where, as rumor had it, we were to be assigned to infantry and airborne divisions mustered for the D Day landings. By three in the afternoon, I'd packed all my belongings into my barrack bag, including a canvas gas-mask container full of books I'd brought over from the Other Side. (The gas mask itself I'd slipped through a porthole of the Mauretania some weeks earlier, fully aware that if the enemy ever did use gas I'd never get the damn thing on in time.) I remember standing at an end window of our Quonset but for a very long time, looking out at the slanting, dreary rain, my trigger finger itching imperceptibly, if at all. I could hear behind my back the uncomradely scratching of many fountain pens on many sheets of V-mail paper. Abruptly, with nothing special in mind, I came away from the window and put on my raincoat, cashmere muffler, galoshes, woollen gloves, and overseas cap (the last of which, I'm still told, I wore at an angle all my own--slightly down over both ears). Then, after synchronizing my wristwatch with the clock in the latrine, I walked down the long, wet cobblestone hill into town. I ignored the flashes of lightning all around me. They either had your number on them or they didn't.

In the center of town, which was probably the wettest part of town, I stopped in front of a church to read the bulletin board, mostly because the featured numerals, white on black, had caught my attention but partly because, after three years in the Army, I'd become addicted to reading bulletin boards. At three-fifteen, the board stated, there would be children's-choir practice. I looked at my wristwatch, then back at the board. A sheet of paper was tacked up, listing the names of the children expected to attend practice. I stood in the rain and read all the names, then entered the church.

A dozen or so adults were among the pews, several of them bearing pairs of small-size rubbers, soles up, in their laps. I passed along and sat down in the front row. On the rostrum, seated in three compact rows of auditorium chairs, were about twenty children, mostly girls, ranging in age from about seven to thirteen. At the moment, their choir coach, an enormous woman in tweeds, was advising them to open their mouths wider when they sang. Had anyone, she asked, ever heard of a little dickeybird that dared to sing his charming song without first opening his little beak wide, wide, wide? Apparently nobody ever had. She was given a steady, opaque look. She went on to say that she wanted all her children to absorb the meaning of the words they sang, not just mouth them, like silly-billy parrots. She then blew a note on her pitch-pipe, and the children, like so many underage weightlifters, raised their hymnbooks.

They sang without instrumental accompaniment--or, more accurately in their case, without any interference. Their voices were melodious and unsentimental, almost to the point where a somewhat more denominational man than myself might, without straining, have experienced levitation. A couple of the very youngest children dragged the tempo a trifle, but in a way that only the composer's mother could have found fault with. I had never heard the hymn, but I kept hoping it was one with a dozen or more verses. Listening, I scanned all the children's faces but watched one in particular, that of the child nearest me, on the end seat in the first row. She was about thirteen, with straight ash-blond hair of ear-lobe length, an exquisite forehead, and blase eyes that, I thought, might very possibly have counted the house. Her voice was distinctly separate from the other children's voices, and not just because she was seated nearest me. It had the best upper register, the sweetest-sounding, the surest, and it automatically led the way. The young lady, however, seemed slightly bored with her own singing ability, or perhaps just with the time and place; twice, between verses, I saw her yawn. It was a ladylike yawn, a closed-mouth yawn, but you couldn't miss it; her nostril wings gave her away.

The instant the hymn ended, the choir coach began to give her lengthy opinion of people who can't keep their feet still and their lips sealed tight during the minister's sermon. I gathered that the singing part of the rehearsal was over, and before the coach's dissonant speaking voice could entirely break the spell the children's singing had cast, I got up and left the church.

It was raining even harder. I walked down the street and looked through the window of the Red Cross recreation room, but soldiers were standing two and three deep at the coffee counter, and, even through the glass, I could hear ping-pong balls bouncing in another room. I crossed the street and entered a civilian tearoom, which was empty except for a middle-aged waitress, who looked as if she would have preferred a customer with a dry raincoat. I used a coat tree as delicately as possible, and then sat down at a table and ordered tea and cinnamon toast. It was the first time all day that I'd spoken to anyone. I then looked through all my pockets,

including my raincoat, and finally found a couple of stale letters to reread, one from my wife, telling me how the service at Schrafft's Eighty-eighth Street had fallen off, and one from my mother-in-law, asking me to please send her some cashmere yarn first chance I got away from "camp."

While I was still on my first cup of tea, the young lady I had been watching and listening to in the choir came into the tearoom. Her hair was soaking wet, and

the rims of both ears were showing. She was with a very small boy, unmistakably her brother, whose cap she removed by lifting it off his head with two fingers, as if it were a laboratory specimen. Bringing up the rear was an efficient-looking woman in a limp felt hat--presumably their governess. The choir member, taking off her coat as she walked across the floor, made the table selection--a good one, from my point of view, as it was just eight or ten feet directly in front of me. She and the governess sat down. The small boy, who was about five, wasn't ready to sit down yet. He slid out of and discarded his reefer; then, with the deadpan expression of a born heller, he methodically went about annoying his governess by pushing in and pulling out his chair several times, watching her face. The governess, keeping her voice down, gave him two or three orders to sit down and, in effect, stop the monkey business, but it was only when his sister spoke to him that he came around and applied the small of his back to his chair seat. He immediately picked up his napkin and put it on his head. His sister removed it, opened it, and spread it out on his lap.

About the time their tea was brought, the choir member caught me staring over at her party. She stared back at me, with those house-counting eyes of hers, then, abruptly, gave me a small, qualified smile. It was oddly radiant, as certain small, qualified smiles sometimes are. I smiled back, much less radiantly, keeping my upper lip down over a coal-black G.I. temporary filling showing between two of my front teeth. The next thing I knew, the young lady was standing, with enviable poise, beside my table. She was wearing a tartan dress--a Campbell tartan, I believe. It seemed to me to be a wonderful dress for a very young girl to be wearing on a rainy, rainy day. "I thought Americans despised tea," she said. It wasn't the observation of a smart aleck but that of a truth-lover or a statistics-lover. I replied that some of us never drank anything but tea. I asked her if she'd care to join me.

"Thank you," she said. "Perhaps for just a fraction of a moment."

I got up and drew a chair for her, the one opposite me, and she sat down on the forward quarter of it, keeping her spine easily and beautifully straight. I went back-- almost hurried back--to my own chair, more than willing to hold up my end of a conversation. When I was seated, I couldn't think of anything to say, though. I smiled again, still keeping my coal-black filling under concealment. I remarked that it was certainly a terrible day out.

"Yes; quite," said my guest, in the clear, unmistakable voice of a small-talk detester. She placed her fingers flat on the table edge, like someone at a seance, then, almost instantly, closed her hands--her nails were bitten down to the quick.

She was wearing a wristwatch, a military-looking one that looked rather like a navigator's chronograph. Its face was much too large for her slender wrist. "You were at choir practice," she said matter-of-factly. "I saw you."

I said I certainly had been, and that I had heard her voice singing separately from

the others. I said I thought she had a very fine voice. She nodded. "I know. I'm going to be a professional singer." "Really? Opera?"

"Heavens, no. I'm going to sing jazz on the radio and make heaps of money. Then, when I'm thirty, I shall retire and live on a ranch in Ohio." She touched the top of her soaking-wet head with the flat of her hand. "Do you know Ohio?" she asked.

I said I'd been through it on the train a few times but that I didn't really know it. I offered her a piece of cinnamon toast.

"No, thank you," she said. "I eat like a bird, actually."

I bit into a piece of toast myself, and commented that there's some mighty rough country around Ohio. "I know. An American I met told me. You're the eleventh American I've met."

Her governess was now urgently signalling her to return to her own table--in effect, to stop bothering the man. My guest, however, calmly moved her chair an inch or two so that her back broke all possible further communication with the home table. "You go to that secret Intelligence school on the hill, don't you?" she inquired coolly.

As security-minded as the next one, I replied that I was visiting Devonshire for my health.

"Really," she said, "I wasn't quite bom yesterday, you know."

I said I'd bet she hadn't been, at that. I drank my tea for a moment. I was getting a trifle posture-conscious and I sat up somewhat straighter in my seat.

"You seem quite intelligent for an American," my guest mused.

I told her that was a pretty snobbish thing to say, if you thought about it at all, and that I hoped it was unworthy of her.

She blushed--automatically conferring on me the social poise I'd been missing.

"Well. Most of the Americans I've seen act like animals. They're forever punching one another about, and insulting everyone, and--You know what one of them did?"

I shook my head.

“One of them threw an empty whiskey bottle through my aunt’s window. Fortunately, the window was open. But does that sound very intelligent to you?”

It didn’t especially, but I didn’t say so. I said that many soldiers, all over the world, were a long way from home, and that few of them had had many real advantages in life. I said I’d thought that most people could figure that out for themselves.

“Possibly,” said my guest, without conviction. She raised her hand to her wet head again, picked at a few limp filaments of blond hair, trying to cover her exposed ear rims. “My hair is soaking wet,” she said. “I look a fright.” She looked over at me. “I

have quite wavy hair when it’s dry.”

“I can see that, I can see you have.”

“Not actually curly, but quite wavy,” she said. “Are you married?”

I said I was.

She nodded. “Are you very deeply in love with your wife? Or am I being too personal?”

I said that when she was, I’d speak up.

She put her hands and wrists farther forward on the table, and I remember wanting to do something about that enormous-faced wristwatch she was wearing--perhaps suggest that she try wearing it around her waist.

“Usually, I’m not terribly gregarious,” she said, and looked over at me to see if I knew the meaning of the word. I didn’t give her a sign, though, one way or the other. “I purely came over because I thought you looked extremely lonely. You have an extremely sensitive face.”

I said she was right, that I had been feeling lonely, and that I was very glad she’d come over.

“I’m training myself to be more compassionate. My aunt says I’m a terribly cold person,” she said and felt the top of her head again. “I live with my aunt. She’s an extremely kind person. Since the death of my mother, she’s done everything within her power to make Charles and me feel adjusted.”

“I’m glad.”

“Mother was an extremely intelligent person. Quite sensuous, in many ways.” She looked at me with a kind of fresh acuteness. “Do you find me terribly cold?”

I told her absolutely not--very much to the contrary, in fact. I told her my name and asked for hers. She hesitated. "My first name is Esme. I don't think I shall tell you my full name, for the moment. I have a title and you may just be impressed by titles. Americans are, you know."

I said I didn't think I would be, but that it might be a good idea, at that, to hold on to the title for a while.

Just then, I felt someone's warm breath on the back of my neck. I turned around and just missed brushing noses with Esme's small brother. Ignoring me, he addressed his sister in a piercing treble: "Miss Megley said you must come and finish your tea!" His message delivered, he retired to the chair between his sister and me, on my right. I regarded him with high interest. He was looking very splendid in brown Shetland shorts, a navy-blue jersey, white shirt, and striped necktie. He gazed back at me with immense green eyes. "Why do people in films kiss sideways?" he demanded.

"Sideways?" I said. It was a problem that had baffled me in my childhood. I said I guessed it was because actors' noses are too big for kissing anyone head on.

"His name is Charles," Esme said. "He's extremely brilliant for his age."

"He certainly has green eyes. Haven't you, Charles?" Charles gave me the fishy look my question deserved, then wriggled downward and forward in his chair till all of his body was under the table except his head, which he left, wrestler's-bridge style, on the chair seat. "They're orange," he said in a strained voice, addressing the ceiling. He picked up a corner of the tablecloth and put it over his handsome, deadpan little face.

"Sometimes he's brilliant and sometimes he's not," Esme said. "Charles, do sit up!" Charles stayed right where he was. He seemed to be holding his breath. "He misses our father very much. He was s-l-a-i-n in North Africa." I expressed regret to hear it.

Esme nodded. "Father adored him." She bit reflectively at the cuticle of her thumb. "He looks very much like my mother--Charles, I mean. I look exactly like my father." She went on biting at her cuticle. "My mother was quite a passionate woman. She was an extrovert. Father was an introvert. They were quite well mated, though, in a superficial way. To be quite candid, Father really needed more of an intellectual companion than Mother was. He was an extremely gifted genius."

I waited, receptively, for further information, but none came. I looked down at Charles, who was now resting the side of his face on his chair seat. When he saw

that I was looking at him, he closed his eyes, sleepily, angelically, then stuck out his tongue--an appendage of startling length--and gave out what in my country would have been a glorious tribute to a myopic baseball umpire. It fairly shook the tearoom.

“Stop that,” Esme said, clearly unshaken. “He saw an American do it in a fish-and-chips queue, and now he does it whenever he’s bored. Just stop it, now, or I shall send you directly to Miss Megley.”

Charles opened his enormous eyes, as sign that he’d heard his sister’s threat, but otherwise didn’t look especially alerted. He closed his eyes again, and continued to rest the side of his face on the chair seat.

I mentioned that maybe he ought to save it--meaning the Bronx cheer--till he started using his title regularly. That is, if he had a title, too.

Esme gave me a long, faintly clinical look. “You have a dry sense of humor, haven’t you?” she said--wistfully. “Father said I have no sense of humor at all. He said I was unequipped to meet life because I have no sense of humor.”

Watching her, I lit a cigarette and said I didn’t think a sense of humor was of any use in a real pinch.

“Father said it was.”

This was a statement of faith, not a contradiction, and I quickly switched horses. I nodded and said her father had probably taken the long view, while I was taking the short (whatever that meant).

“Charles misses him exceedingly,” Esme said, after a moment. “He was an exceedingly lovable man. He was extremely handsome, too. Not that one’s appearance matters greatly, but he was. He had terribly penetrating eyes, for a man who was intransigently kind.”

I nodded. I said I imagined her father had had quite an extraordinary vocabulary.

“Oh, yes; quite,” said Esme. “He was an archivist--amateur, of course.”

At that point, I felt an importunate tap, almost a punch, on my upper arm, from Charles’ direction. I turned to him. He was sitting in a fairly normal position in his chair now, except that he had one knee tucked under him. “What did one wall say to the other wall?” he asked shrilly. “It’s a riddle!”

I rolled my eyes reflectively ceilingward and repeated the question aloud. Then I looked at Charles with a stumped expression and said I gave up.

“Meet you at the corner!” came the punch line, at top volume.

It went over biggest with Charles himself. It struck him as unbearably funny. In fact, Esme had to come around and pound him on the back, as if treating him for a coughing spell. “Now, stop that,” she said. She went back to her own seat. “He tells that same riddle to everyone he meets and has a fit every single time. Usually he drools when he laughs. Now, just stop, please.”

“It’s one of the best riddles I’ve heard, though,” I said, watching Charles, who was very gradually coming out of it. In response to this compliment, he sank considerably lower in his chair and again masked his face up to the eyes with a corner of the tablecloth. He then looked at me with his exposed eyes, which were full of slowly subsiding mirth and the pride of someone who knows a really good riddle or two.

“May I inquire how you were employed before entering the Army?” Esme asked me.

I said I hadn’t been employed at all, that I’d only been out of college a year but that I like to think of myself as a professional short-story writer.

She nodded politely. “Published?” she asked.

It was a familiar but always touchy question, and one that I didn’t answer just one, two, three. I started to explain how most editors in America were a bunch--

“My father wrote beautifully,” Esme interrupted. “I’m saving a number of his letters for posterity.”

I said that sounded like a very good idea. I happened to be looking at her enormous-faced, chronographic-looking wristwatch again. I asked if it had belonged to her father.

She looked down at her wrist solemnly. “Yes, it did,” she said. “He gave it to me just

before Charles and I were evacuated.” Self-consciously, she took her hands off the table, saying, “Purely as a memento, of course.” She guided the conversation in a different direction. “I’d be extremely flattered if you’d write a story exclusively for me sometime. I’m an avid reader.”

I told her I certainly would, if I could. I said that I wasn’t terribly prolific.

“It doesn’t have to be terribly prolific! Just so that it isn’t childish and silly.” She reflected. “I prefer stories about squalor.”

“About what?” I said, leaning forward. “Squalor. I’m extremely interested in squalor.”

I was about to press her for more details, but I felt Charles pinching me, hard,

on my arm. I turned to him, wincing slightly. He was standing right next to me. "What did one wall say to the other wall?" he asked, not unfamiliarly.

"You asked him that," Esme said. "Now, stop it."

Ignoring his sister, and stepping up on one of my feet, Charles repeated the key question. I noticed that his necktie knot wasn't adjusted properly. I slid it up into place, then, looking him straight in the eye, suggested, "Meetcha at the corner?" The instant I'd said it, I wished I hadn't. Charles' mouth fell open. I felt as if I'd struck it open. He stepped down off my foot and, with white-hot dignity, walked over to his own table, without looking back.

"He's furious," Esme said. "He has a violent temper. My mother had a propensity to spoil him. My father was the only one who didn't spoil him."

I kept looking over at Charles, who had sat down and started to drink his tea, using both hands on the cup. I hoped he'd turn around, but he didn't.

Esme stood up. "Il faut que je parte aussi," she said, with a sigh. "Do you know French?"

I got up from my own chair, with mixed feelings of regret and confusion. Esme and I shook hands; her hand, as I'd suspected, was a nervous hand, damp at the palm. I told her, in English, how very much I'd enjoyed her company.

She nodded. "I thought you might," she said. "I'm quite communicative for my age." She gave her hair another experimental touch. "I'm dreadfully sorry about my hair," she said. "I've probably been hideous to look at."

"Not at all! As a matter of fact, I think a lot of the wave is coming back already."

She quickly touched her hair again. "Do you think you'll be coming here again in the immediate future?" she asked. "We come here every Saturday, after choir practice."

I answered that I'd like nothing better but that, unfortunately, I was pretty sure I wouldn't be able to make it again.

"In other words, you can't discuss troop movements," said Esme. She made no move

to leave the vicinity of the table. In fact, she crossed one foot over the other and, looking down, aligned the toes of her shoes. It was a pretty little execution, for she was wearing white socks and her ankles and feet were lovely. She looked up at me abruptly. "Would you like me to write to you?" she asked, with a certain amount of color in her face. "I write extremely articulate letters for a person my-

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"I'd love it." I took out pencil and paper and wrote down my name, rank, serial number, and A.P.O. number.

"I shall write to you first," she said, accepting it, "so that you don't feel compromised in any way." She put the address into a pocket of her dress. "Goodbye," she said, and walked back to her table.

I ordered another pot of tea and sat watching the two of them till they, and the harassed Miss Megley, got up to leave. Charles led the way out, limping tragically, like a man with one leg several inches shorter than the other. He didn't look over at me. Miss Megley went next, then Esme, who waved to me. I waved back, half getting up from my chair. It was a strangely emotional moment for me.

Less than a minute later, Esme came back into the tearoom, dragging Charles behind her by the sleeve of his reefer. "Charles would like to kiss you goodbye," she said.

I immediately put down my cup, and said that was very nice, but was she sure?

"Yes," she said, a trifle grimly. She let go Charles' sleeve and gave him a rather vigorous push in my direction. He came forward, his face livid, and gave me a loud, wet smacker just below the right ear. Following this ordeal, he started to make a beeline for the door and a less sentimental way of life, but I caught the half belt at the back of his reefer, held on to it, and asked him, "What did one wall say to the other wall?"

His face lit up. "Meet you at the corner!" he shrieked, and raced out of the room, possibly in hysterics.

Esme was standing with crossed ankles again. "You're quite sure you won't forget to write that story for me?" she asked. "It doesn't have to be exclusively for me. It can- -"

I said there was absolutely no chance that I'd forget. I told her that I'd never written a story for anybody, but that it seemed like exactly the right time to get down to it.

She nodded. "Make it extremely squalid and moving," she suggested. "Are you at all acquainted with squalor?"

I said not exactly but that I was getting better acquainted with it, in one form or another, all the time, and that I'd do my best to come up to her specifications. We shook hands.

"Isn't it a pity that we didn't meet under less extenuating circumstances?" I said it was, I said it certainly was. "Goodbye," Esme said. "I hope you return from the

war with all your faculties intact.”

I thanked her, and said a few other words, and then watched her leave the tea-room. She left it slowly, reflectively, testing the ends of her hair for dryness.

This is the squalid, or moving, part of the story, and the scene changes. The people change, too. I’m still around, but from here on in, for reasons I’m not at liberty to disclose, I’ve disguised myself so cunningly that even the cleverest reader will fail to recognize me.

It was about ten-thirty at night in Gaufurt, Bavaria, several weeks after V-E Day. Staff Sergeant X was in his room on the second floor of the civilian home in which he and nine other American soldiers had been quartered, even before the armistice. He was seated on a folding wooden chair at a small, messy-looking writing table, with a paperback overseas novel open before him, which he was having great trouble reading. The trouble lay with him, not the novel. Although the men who lived on the first floor usually had first grab at the books sent each month by Special Services, X usually seemed to be left with the book he might have selected himself. But he was a young man who had not come through the war with all his faculties intact, and for more than an hour he had been triple-reading paragraphs, and now he was doing it to the sentences. He suddenly closed the book, without marking his place. With his hand, he shielded his eyes for a moment against the harsh, watty glare from the naked bulb over the table.

He took a cigarette from a pack on the table and lit it with fingers that bumped gently and incessantly against one another. He sat back a trifle in his chair and smoked without any sense of taste. He had been chain-smoking for weeks. His gums bled at the slightest pressure of the tip of his tongue, and he seldom stopped experimenting; it was a little game he played, sometimes by the hour. He sat for a moment smoking and experimenting. Then, abruptly, familiarly, and, as usual, with no warning, he thought he felt his mind dislodge itself and teeter, like insecure luggage on an overhead rack. He quickly did what he had been doing for weeks to set things right: he pressed his hands hard against his temples. He held on tight for a moment. His hair needed cutting, and it was dirty. He had washed it three or four times during his two weeks’ stay at the hospital in Frankfurt on the Main, but it had got dirty again on the long, dusty jeep ride back to Gaufurt. Corporal Z, who had called for him at the hospital, still drove a jeep combat-style, with the windshield down on the hood, armistice or no armistice. There were thousands of new troops in Germany. By driving with his windshield down, combat-style, Corporal Z hoped to show that he was not one of them, that not by a long shot was he some new son of a bitch in the E.T.O.

When he let go of his head, X began to stare at the surface of the writing table, which was a catchall for at least two dozen unopened letters and at least five or six unopened packages, all addressed to him. He reached behind the debris and picked out a book that stood against the wall. It was a book by Goebbels, entitled "Die Zeit Ohne Beispiel." It belonged to the thirty-eight-year-old, unmarried daughter of the family that, up to a few weeks earlier, had been living in the house. She had been a low official in the Nazi Party, but high enough, by Army Regulations standards, to fall into an automatic-arrest category. X himself had arrested her. Now, for the third time since he had returned from the hospital that day, he opened the woman's book and read the brief inscription on the flyleaf. Written in ink, in German, in a small, hopelessly sincere handwriting, were the words "Dear God, life is hell." Nothing led up to or away from it. Alone on the page, and in the sickly stillness of the room, the words appeared to have the stature of an uncontested, even classic indictment. X

stared at the page for several minutes, trying, against heavy odds, not to be taken in. Then, with far more zeal than he had done anything in weeks, he picked up a pencil stub and wrote down under the inscription, in English, "Fathers and teachers, I ponder 'What is hell?' I maintain that it is the suffering of being unable to love." He started to write Dostoevski's name under the inscription, but saw--with fright that ran through his whole body--that what he had written was almost entirely illegible. He shut the book.

He quickly picked up something else from the table, a letter from his older brother in Albany. It had been on his table even before he had checked into the hospital. He opened the envelope, loosely resolved to read the letter straight through, but read only the top half of the first page. He stopped after the words "Now that the g.d. war is over and you probably have a lot of time over there, how about sending the kids a couple of bayonets or swastikas . . ." After he'd torn it up, he looked down at the pieces as they lay in the wastebasket. He saw that he had overlooked an enclosed snapshot. He could make out somebody's feet standing on a lawn somewhere.

He put his arms on the table and rested his head on them. He ached from head to foot, all zones of pain seemingly interdependent. He was rather like a Christmas tree whose lights, wired in series, must all go out if even one bulb is defective.

The door banged open, without having been rapped on. X raised his head, turned it, and saw Corporal Z standing in the door. Corporal Z had been X's jeep partner and constant companion from D Day straight through five campaigns

of the war. He lived on the first floor and he usually came up to see X when he had a few rumors or gripes to unload. He was a huge, photogenic young man of twenty-four. During the war, a national magazine had photographed him in Hurtgen Forest; he had posed, more than just obligingly, with a Thanksgiving turkey in each hand. "Ya writin' letters?" he asked X. "It's spooky in here, for Chrissake." He preferred always to enter a room that had the overhead light on. X turned around in his chair and asked him to come in, and to be careful not to step on the dog.

"The what?"

"Alvin. He's right under your feet, Clay. How 'bout turning on the goddam light?"

Clay found the overhead-light switch, flicked it on, then stepped across the puny, servant's-size room and sat down on the edge of the bed, facing his host. His brick-red hair, just combed, was dripping with the amount of water he required for satisfactory grooming. A comb with a fountain-pen clip protruded, familiarly, from the right-hand pocket of his olive-drab shirt. Over the left-hand pocket he was wearing the Combat Infantrymen's Badge (which, technically, he wasn't authorized to wear), the European Theatre ribbon, with five bronze battle stars in it (instead of a lone silver one, which was the equivalent of five bronze ones), and the pre-Pearl Harbor service ribbon. He sighed heavily and said, "Christ almighty." It meant nothing; it was Army. He took a pack of cigarettes from his shirt pocket, tapped one out, then put away the pack and rebuttoned the pocket flap. Smoking, he looked vacuously around the room. His look finally settled on the radio. "Hey," he said. "They got this terrific show comin' on the radio in a coupla minutes. Bob Hope, and everybody."

X, opening a fresh pack of cigarettes, said he had just turned the radio off.

Undarkened, Clay watched X trying to get a cigarette lit. "Jesus," he said, with spectator's enthusiasm, "you oughta see your goddam hands. Boy, have you got the shakes. Ya know that?"

X got his cigarette lit, nodded, and said Clay had a real eye for detail.

"No kidding, hey. I goddam near fainted when I saw you at the hospital. You looked like a goddam corpse. How much weight ya lose? How many pounds? Ya know?"

"I don't know. How was your mail when I was gone? You heard from Loretta?"

Loretta was Clay's girl. They intended to get married at their earliest convenience. She wrote to him fairly regularly, from a paradise of triple exclamation

points and inaccurate observations. All through the war, Clay had read all Loretta's letters aloud to X, however intimate they were--in fact, the more intimate, the better. It was his custom, after each reading, to ask X to plot out or pad out the letter of reply, or to insert a few impressive words in French or German.

"Yeah, I had a letter from her yesterday. Down in my room. Show it to ya later," Clay said, listlessly. He sat up straight on the edge of the bed, held his breath, and issued a long, resonant belch. Looking just semi-pleased with the achievement, he relaxed again. "Her goddam brother's gettin' outa the Navy on account of his hip," he said. "He's got this hip, the bastard." He sat up again and tried for another belch, but with below-par results. A jolt of alertness came into his face. "Hey. Before I forget. We gotta get up at five tomorrow and drive to Hamburg or someplace. Pick up Eisenhower jackets for the whole detachment."

X, regarding him hostilely, stated that he didn't want an Eisenhower jacket.

Clay looked surprised, almost a trifle hurt. "Oh, they're good! They look good. How come?"

"No reason. Why do we have to get up at five? The war's over, for God's sake."

"I don't know--we gotta get back before lunch. They got some new forms in we gotta fill out before lunch.... I asked Bulling how come we couldn't fill 'em out tonight--he's got the goddam forms right on his desk. He don't want to open the envelopes yet, the son of a bitch."

The two sat quiet for a moment, hating Bulling. Clay suddenly looked at X with new- higher-interest than before. "Hey," he said. "Did you know the goddam side of your face is jumping all over the place?"

X said he knew all about it, and covered his tic with his hand.

Clay stared at him for a moment, then said, rather vividly, as if he were the bearer of exceptionally good news, "I wrote Loretta you had a nervous breakdown."

"Oh?" "Yeah. She's interested as hell in all that stuff. She's majoring in psychology." Clay

stretched himself out on the bed, shoes included. "You know what she said? She says nobody gets a nervous breakdown just from the war and all. She says you probably were unstable like, your whole goddam life."

X bridged his hands over his eyes--the light over the bed seemed to be blinding him--and said that Loretta's insight into things was always a joy.

Clay glanced over at him. "Listen, ya bastard," he said. "She knows a goddam sight more psychology than you do."

“Do you think you can bring yourself to take your stinking feet off my bed?” X asked.

Clay left his feet where they were for a few don't-tell-me-where-to-put-my-feet seconds, then swung them around to the floor and sat up. “I'm goin' downstairs anyway. They got the radio on in Walker's room.” He didn't get up from the bed, though. “Hey. I was just tellin' that new son of a bitch, Bernstein, downstairs. Remember that time I and you drove into Valognes, and we got shelled for about two goddam hours, and that goddam cat I shot that jumped up on the hood of the jeep when we were layin' in that hole? Remember?”

“Yes--don't start that business with that cat again, Clay, God damn it. I don't want to hear about it.”

“No, all I mean is I wrote Loretta about it. She and the whole psychology class discussed it. In class and all. The goddam professor and everybody.”

“That's fine. I don't want to hear about it, Clay.”

“No, you know the reason I took a pot shot at it, Loretta says? She says I was temporarily insane. No kidding. From the shelling and all.”

X threaded his fingers, once, through his dirty hair, then shielded his eyes against the light again. “You weren't insane. You were simply doing your duty. You killed that pussycat in as manly a way as anybody could've under the circumstances.”

Clay looked at him suspiciously. “What the hell are you talkin' about?”

“That cat was a spy. You had to take a pot shot at it. It was a very clever German midget dressed up in a cheap fur coat. So there was absolutely nothing brutal, or cruel, or dirty, or even--”

“God damn it!” Clay said, his lips thinned. “Can't you ever be sincere?”

X suddenly felt sick, and he swung around in his chair and grabbed the wastebasket- -just in time. When he had straightened up and turned toward his guest again, he found him standing, embarrassed, halfway between the bed and the door. X started to apologize, but changed his mind and reached for his cigarettes.

“C'mon down and listen to Hope on the radio, hey,” Clay said, keeping his distance but trying to be friendly over it. “It'll do ya good. I mean it.”

“You go ahead, Clay. . . . I'll look at my stamp collection.”

“Yeah? You got a stamp collection? I didn't know you--” “I'm only kidding.”

Clay took a couple of slow steps toward the door. "I may drive over to Ehstadt later," he said. "They got a dance. It'll probably last till around two. Wanna go?"

"No, thanks. . . . I may practice a few steps in the room."

"O.K. G'night! Take it easy, now, for Chrissake." The door slammed shut, then instantly opened again. "Hey. O.K. if I leave a letter to Loretta under your door? I got some German stuff in it. Willya fix it up for me?"

"Yes. Leave me alone now, God damn it."

"Sure," said Clay. "You know what my mother wrote me? She wrote me she's glad you and I were together and all the whole war. In the same jeep and all. She says my letters are a helluva lot more intelligent since we been goin' around together."

X looked up and over at him, and said, with great effort, "Thanks. Tell her thanks for me."

"I will. G'night!" The door slammed shut, this time for good.

X sat looking at the door for a long while, then turned his chair around toward the writing table and picked up his portable typewriter from the floor. He made space for it on the messy table surface, pushing aside the collapsed pile of unopened letters and packages. He thought if he wrote a letter to an old friend of his in New York there might be some quick, however slight, therapy in it for him. But he couldn't insert his notepaper into the roller properly, his fingers were shaking so violently now. He put his hands down at his sides for a minute, then tried again, but finally crumpled the notepaper in his hand.

He was aware that he ought to get the wastebasket out of the room, but instead of doing anything about it, he put his arms on the typewriter and rested his head again, closing his eyes.

A few throbbing minutes later, when he opened his eyes, he found himself squinting at a small, unopened package wrapped in green paper. It had probably slipped off the pile when he had made space for the typewriter. He saw that it had been readdressed several times. He could make out, on just one side of the package, at least three of his old A.P.O. numbers.

He opened the package without any interest, without even looking at the return address. He opened it by burning the string with a lighted match. He was more interested in watching a string burn all the way down than in opening the package, but he opened it, finally.

Inside the box, a note, written in ink, lay on top of a small object wrapped in

tissue paper. He picked out the note and read it.

17, ----ROAD,

-----DEVON JUNE 7, 1944 DEAR SERGEANT X,

I hope you will forgive me for having taken 38 days to begin our correspondence but, I have been extremely busy as my aunt has undergone streptococcus of the throat and nearly perished and I have been justifiably saddled with one responsibility after another. However I have thought of you frequently and of the extremely pleasant afternoon we spent in each other's company on April 30, 1944 between 3:45 and 4:15 P.M. in case it slipped your mind.

We are all tremendously excited and overawed about D Day and only hope that it will bring about the swift termination of the war and a method of existence that is ridiculous to say the least. Charles and I are both quite concerned about you; we hope you were not among those who made the first initial assault upon the Cotentin Peninsula. Were you? Please reply as speedily as possible. My warmest regards to your wife.

Sincerely yours,

ESMA

P.S. I am taking the liberty of enclosing my wristwatch which you may keep in your possession for the duration of the conflict. I did not observe whether you were wearing one during our brief association, but this one is extremely water-proof and shockproof as well as having many other virtues among which one can tell at what velocity one is walking if one wishes. I am quite certain that you will use it to greater advantage in these difficult days than I ever can and that you will accept it as a lucky talisman.

Charles, whom I am teaching to read and write and whom I am finding an extremely intelligent novice, wishes to add a few words. Please write as soon as you have the time and inclination.

HELLO LOVE  
AND KISSES CHALES

It was a long time before X could set the note aside, let alone lift Esme's father's wristwatch out of the box. When he did finally lift it out, he saw that its crystal had been broken in transit. He wondered if the watch was otherwise undamaged, but he hadn't the courage to wind it and find out. He just sat with it in his hand for another long period. Then, suddenly, almost ecstatically, he felt sleepy.

You take a really sleepy man, Esme, and he always stands a chance of again becoming a man with all his fac-with all his f-a-c-u-l-t-i-e-s intact.

**Thank you for your Love.  
Let's go for a hike and see some stars!**

**<3 thanks to:**

**My brother, Ty, and to my Mom & Dad, Sean, Heiji, Sevonne, Lynnette, Agga, Claire, Morgan, Samantha and Joel Lipman, Victor, Leo, Dez, Alex, Tyler, Dale, Michael, Marc, Jay, Joey, the Dosers, the Dose-goers, and everyone I Love, including you. And thanks also to baby B, that giggle fest with you and your mom was surely my favorite moment—of so many incredible moments—in 2014.**

**YOU'VE REACHED  
*THE END!***

*But! It's never really  
the end. It all goes  
on. And I just love  
you, so, hope to  
see you soon, boo.*

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XXXXXXXXXXXXXXXX **XO**

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