

21. Bashing Barriers

American businesses not only don't support bike commuting, they actively discourage it. To truly support, they'd have to provide a locker room where cyclists could store togs, changing areas, preferably with a hot shower rather than a janitor's sink, and optimally laundry facilities, but minimally hot running water and a little privacy. They might allow employees to store their bikes where they work rather than out in the rain and snow. Al always brought his right into his cube, which says loudly, "Bikes belong." If, however, they allow it for a while then lay off those who do, it says, "Bicyclists begone." From his jaundiced viewpoint through chosen yellow safety glasses, you're daft to risk your income for big fuel avoidances, environmental boons, health benefits, and mental alertness biking daily to work represents. Not worth it. "Let planet and everyone on it go to hell!" Conserving resources and working smarter are not valued, not even profits, only *appearances*, dark jackets, regimental ties and white shirts. Losing daily stress was counterproductive; businesses stress you to your breaking point, then cast you out for fresh replacements. Don't ever mix exercise with daily grind or obligatory consumption. Seems too much like you're having fun.

Smart commuters bike to a nearby location—friend's house or motel or store—clean up, hide bike, and bus or walk to work from there, never reveal what they're up to. Closet cycling: don't ask, don't tell, many benefits, no hassles. Spandex unnerves people. Coworkers are disgusted by riders caked with so much mud they'd need a spackle knife to remove. Many bicyclists simply spun after or before work, which doubles their time commitments and trashes any sensible commuting aspects. So much for self reliance. Businesses won't pay you enough to afford driving, expect you to go into deep debt and work ever more diligently out of fear of repossession. They only hire *motivated* employees. Bicyclists would benefit from *bike hostels* or *safe houses* or some such service at low cost. Bikes will only belong if society legislates change. Yet even since civil rights were guaranteed by law, there's sneaky segregation: affirmative action limits, covert age and race biases, glass ceilings. Where he once worked they employed thousands, no people of color, no women in upper management positions, and only tokens over 50 years old, hardly demographically possible without illegal

discrimination. Nevertheless, they claimed federal tax breaks and other boons. The World's run by an all-white boys' club on bloated, unearned salaries. Why do you think there's organized crime? It's imitation of establishment by outsiders. Lingo and jargon are analogous to techese and spin. Mob hits mimic firings and layoffs, not to mention heretic burnings. Protection rackets imitate insurance. Some organization is better than none, and mobs once kept neighborhoods safe where police were told not to bother. But all breaches in ethics spill out depressingly into society. Monthly bottom line focus at the expense of people's welfare is immoral, at best. Dinks drive gas guzzlers because they can, join sports car rallies on weekends, look to intimidate bicyclists, and ridicule anyone who thinks otherwise. All the same. Never going to change.

Unlike a car, a bike can easily be seized and tossed into a trunk or van, or, when securely chained, vandalized beyond hope of riding home. If you can't bring it in or garage it, about the only other solution is a locker. Bike lockers close to where you study or work can be a storage solution out of reach of would-be thieves or vandals. In a post 9/11 America, public places are not suitable for lockers. Private businesses, where security guards regularly check them, or schools make more sense. If at school, youth could get early into habit of bike commuting. Schools are seldom a target of cowardly bombers, unless they're deploying a WMD, then any bike locker, bus locker, lonely dump, scrap yard or van on roadside would serve. Business policies, or crappy bosses taking it upon themselves to deny you your rights, stand in your way. Where there were no lockers, for daytime storage immovable racks had to suffice, and he used them, if offered, as long as they were away from traffic patterns and inconvenient for motorists and vandals to abuse, but not totally out of sight. Lattice grids and sine wave monstrosities are overkill, make it hard to actually lock a bike, limit number of bikes, occupy too much space, or provide a convenient place for loiterers to park their butts. A steel oval welded to an immovable post is better. One should thread chain through both wheels and frame, even if you have to remove front wheel and stack next to rear. Without a rack, anything immovable works, like an anchored eyelet submerged below level of pavement, parking lot lamppost, telephone pole, or wrought iron fence, but neither chainlink, which can be easily clipped, nor short signpost, over which a chained bike can be lifted. Wooden fences are too easily dismantled or kicked in.

He discovered a new battle tactic: take your bike into supermarkets. One busy day with a quick stop for a few items, he decided it was too much bother finding an out-of-the-way spot to lock up bike. So he unhooked his front wheel and put frame and wheel into a shopping cart. Was met with comments and stares, but it was remarkably efficient, and bike, being light, narrow and tall, didn't inconvenience anyone. Taking it in was better than leaving it outside unlocked, he eagerly explained to whoever complained. Otherwise, anyone driving an SUV could toss it into back, an ideal way to carry bikes, away from saboteurs, out of weather, as opposed to contraptions you attach to vehicles, all hooks and straps for back or roof, but better than nothing if you didn't happen to own a fuel sucking vehicle big enough to enclose a bike or tandem and likely to make you a carjacker's target. All cramming it into a trunk or plopping onto a roof grid did was damage bike or permit it to fall into following mo-ves, either of which causes loss. Weight so light that anyone could snatch and worth several hundreds or thousands of dollars, a bicycle is considerable investment to chance foolishly. Mo-ves are loaded with antitheft devices including, among others, inaccessible door locks, keys with microchips, and locking steering wheels, made necessary because advertising fanned everyone's ardor for this technological nexus of distraction, now physically being used as a huge radio antenna for Internet wi-fi access.

Even if you subvert technocracy by carting yourself around without motors, you don't get away for free. They've got you coming and going. Besides jeopardizing a salary, there's a relentless profit motive surrounding all aspects of bicycling: admittance fees, apparel, charities, doctor bills, equipment, food, services, supplies. Club membership entitled you to bike store discounts, which were worthless, since you couldn't combine them with coupons of greater value readily available. They were more a lazy man's instant discount that acknowledged everything retail was already overpriced. Trips to local bike shops—LBS, a good acronym, as in pounds sterling, what British cyclists pay and pay—became increasingly frequent. He liked going there, almost a magical mystery tour on each trip. Everything was priced as if proprietors had dropped acid and believed each had incredible worth beyond wholesale. A bit of twisted aluminum no bigger than your fist suddenly became a priceless artifact, enshrined behind glass, gemstone encrusted gold, as if for museum display or worship, not pragmatic utility. Just a freaking pedal, man.

You can buy a bike more or less complete, but they offer custom equivalents for each unsuitable component. You're actually better off buying fork, frame, gruppo, saddle and wheels separately and having them skillfully assembled, even though this significantly increases initial purchase, since you'll be replacing them soon enough on a cheap bike anyway. He wandered bewildered past chains, bottle cages, fleece, gear cassettes, lubes, map holders, neoprene, pedals, things valued more among 2-wheeled initiates than billions of others. It was as if mass production no longer existed and everything had to be handmade in someone's basement. With a few hundred million, you could probably buy out all those tiny bodegas and standardize working bits, supplant Campagnolo and Shimano with better quality, lower price rivals made from fine homespun metals, something that might last longer than cheap steel or soft aluminum, maybe forged stainless. You could also custom make effective frames in mass production mode. Can you imagine a bike shop as a place that simply measures you dynamically, then assembles your personalized bike from an index of components readily available? He didn't have the backing or will to execute such a plan. Anyway, inventory taxes wouldn't permit.

You can hardly buy anything made in America anymore, so don't feel guilty about buying from abroad. His hybrid came from China, roadie from Italy, and their new drivetrains from Japan. Only Cannondale and Schwinn were still headquartered in USA, and nothing they offer is actually made there. Douglas and Litespeed are among the few who make titanium frames, practically custom made. Otherwise, you have to buy an actual custom frame—Sachs, Mooney, Spectrum—and then marry to British or Italian saddles, German Continental or Michelin tires, Italian Campy and/or Japanese Shimano gruppos, and Swiss Mavic wheels. Seemed a rather inefficient global scheme. There was only room in America for handmade, very high quality builders, because governmental policies dictate domestic makers can't compete on low end anymore. Even so, there are still more bicycle builders than automakers, maintaining some semblance of competition, however slight, which favors consumers. China artificially deflates value of their Yuan. If their currency was allowed to rise naturally with inflation, Chinese labor rates wouldn't be as attractive, shipping costs of would prohibit, and trade balance would gradually restore. You might then be able to buy something American made that was a good value, last longer, and offer better reliability than what's available. Bad policies and cavalier fuel consumption keep it so. American workers need big salaries just to commute to work.

Fixing his hybrid after 17,000 miles meant redoing everything. Any new bike he might covet but couldn't afford would be over \$4,000. Besides, couldn't quite decide between a road or touring bike. Instead, for less than 10%, rebuilt his hybrid with Shimano Deore, better than original equipment. Ran well afterwards. Figured someone in family could use a hybrid with sloping top tube even if he later got a new bike, so investment was worth it. This upgrade cost more than entire bike originally did, but it didn't come so well equipped: cheap rims, fast wearing tires, flimsy bottom bracket, lousy drivetrain. Had already replaced everything more than once already. Could have rebuilt it himself for less, but not much less; never begrudged \$100 bucks for a competent tune-up. Took advantage of whatever discounts on parts he could.

Spent a lot on tires. Bike tires must be replaced 20 times more often than their automotive equivalents. If there is an Achilles' heel in bike design it was where rubber met road. Rear tires wear about twice as fast as front, having to bear most of rider's propelling traction and weight. Front tires receive more trauma damage, hitting cracks or gravel before you can swerve to avoid. Consequently, he tossed out a lot of rubber with tread still on rendered unusable with deep slits and sidewall abrasions. Imported from Europe, replacements were expensive. Among several automotive tire makers across America, especially in Akron, Ohio, why wasn't there one who made competitively priced bicycle tires? You'd think they could make solid tubeless foam-filled types that never flat and last 20 times longer. Solid tires could even have a sharper radius, present less rubber, thus roll easier. Pneumatics inflated to 120 psi only served to match rims, tires and tubes, not soften ride much. Better uniformity and clincher redesign would obviate that need. There's much room for improvement.

During a frosty January incident where he stepped in, entire club passed by a matron, Renee, new to biking, who was stuck on roadside. Trailing behind from a late start, he was the only one who stopped. "You're supposed to ride that thing, not push it," he chuckled. "Flat," frowned Renee. Quickly, he took charge, while his buddies circled round. Bike was brand new, a Christmas present, so owner wasn't yet familiar. To have a flat on a brand new tire was intolerable, especially without a spare tube. Of course, he had what it took to fix, and soon they all resumed riding. Feeling responsible, stuck with Renee for entire session to ensure she didn't break down again, since she didn't have any way to fix by herself if anything else did happen. Those who go more than a few hundred miles a year

have already had this experience, stuck far from help. A breakdown may take time from your fun, or worse, present danger from when and where it occurs, for examples, at apogee of your circuit on a frigid Winter's day, or during a fast descent, or middle of gang turf. Even if you baby your bike, flatting is common and may occur anytime, perhaps when it's most inconvenient. He seldom flatted, though, because he prevented pitfalls. Still, until materials and technology are foolproof, fortify yourself with facts.

Flats are of 3 types in descending order of likelihood: 1) puncture, 2) pinch and 3) blowouts. Percentage-wise, more things poke through tires (1) into tubes which hold air. All it takes is a tiny breach caused by any of the following, in probable order of occurrence: Glass, metal (bits of mo-ves, nails, screws, those staples people use to tack up yard sale signs), stone shards, spokes poking through rim tape, rim damage, thorns, organic debris. Valves can fail, either around base or inside stem. Don't overtighten stabilizing thumb ring, which is only there so you can push a pump onto Presta valve, not to secure anything. Pinch flats (2) are generally caused by catching tube under tire bead or twisting tube while inserting. They also can occur while riding on under-inflated tubes, or slamming into something, such as a curbstone or pothole. Tires themselves can break (3) when badly damaged, tube can bubble out and rupture, often with a loud bang, sometimes exploding tire's sidewall rendering it all but useless. Cyclists claim that excessive heat can cause blowouts, but heavy braking only raises pressure slightly within a tolerable range, ± 10 psi. Physicists argue about such stuff. Likely something else causes such flats as a coincidence at higher speeds, such as kinks in tubes poorly installed.

How to avoid? Watch where you are going! Ride on clean pavement. Avoid bad cracks, and dodge debris, especially glass. Sand harbors bad stuff, like tiny bits of wire from steel belted automotive radials that worm their way into bike tires to cause slow leaks. Test tires for proper inflation, best by gauge every time you ride, but at least a thumb press. A small loss of air every 100 miles or few days between rides is normal. If you're constantly replacing >25 psi, it's a slow leak; replace tube before it lets you down. Replace tires that show major wear: badly scuffed sidewalls, deep cuts, or fabric below treads. Because front tire wears slower, you may be tempted to swap with rear. Don't. A front blowout can compromise steering. Better to keep a good tire on front and use up tread in rear. Inspect tires for embedded debris. Use a dull flat

blade to loosen shards of glass from tiny slits before slowly driven into tube. He picked glass at least once a week. For extra protection, install hard plastic tire liners; they come in several sizes and fit between top of tube and underside of tire. Learn how not to pinch tube with liner.

How does one deal with the inevitable? Avoiding mo-ves is a bicyclist's #1 priority, so you can't always ride on clean pavement swept by bigger vehicles, about the only time they do get swept. Despite all diligence, it's bound to happen, forced into gutter, usually when least convenient, into debris. So be prepared. Carry a saddle bag with tire levers, at least 2 tubes in their boxes to avoid unnecessary abrasion, whatever means you have of inflating tires, and some wet wipes; hands get filthy from chain or rims. A multi-tool with a pair of pliers comes in handy for budging reluctant debris or turning frozen thumbscrews. If your wheels don't clamp on, include wrenches for removing them. Even if you don't know how to repair a flat, someone might come along who does. A frame pump works but adds weight and seldom gets pressure higher than 70 psi. Many cyclists tuck away a disposable CO₂ type inflater with spare cartridges, typically 12 and 16 gram capacities, the larger suited to bigger tires and tubes on hybrids and mountain bikes. On long rides you might consider a spare tire, too, tucked in a pannier or, as he did, in a tall bottle. Learn how to repair a flat; sign up for a class or simply ask at your LBS. Practice at home. Inspect a flattened tire inside and out. It may still have offending item lodged in it, which will cause a new tube to go flat, or an abrasion or hole that might cause it to blow out. Wipe out all grit. Tubes can be repaired, although it is faster and more reliable to simply dispose of them responsibly, since they may have unseen wear, and replace. Why risk it to save \$5? Sometimes you can bridge a blown out tire sidewall with a bit of material or a dollar bill in order to limp home. For this purpose there's an adhesive, clear, thin, patch, called a *boot*, which is inexpensive and takes up negligible space in saddlebag. As a last resort, riders may stuff tires with cloth, leaves, or rope just to roll to where repairs can be safely made. You'll seldom get >5,000 miles on a tire and tube. Buy only the best. He always kept a spare wheelset ready to go. It makes sense to keep more than one bike with interchangeable parts, to avoid being sidelined altogether.

Make it forever your New Year Resolution to upgrade tires and tubes for next season. Get in your miles pedaling instead of pushing. Many resolve to drink and smoke less, get in better shape,

and other straighten-up goals, but never consider bicycling would help them attain them instead of giving up a week later. Most exercise regimens are just too boring to continue, but not bicycling, the only routine he'd ever pursued long term once convinced it wasn't just sport but purposeful conveyance. Reasons to feel good about riding abound. Its convergence of urges convincingly encourage.

Flats, though the most frequent emergency repair, aren't the only fiasco to guard against. Improper shifting usually has to do with worn cables or ferrules or improperly lubed cable sheathes; if cables don't slip easily, gears will hang up. Keep cables clean and lightly lube. They use very fine jewelers oil for this. Broken spokes often have to do with poor quality hubs, easily solved by having wheels custom built. This doesn't cost as much as buying them pre-made, while you can use whatever hubs, nipples, rims and spokes you want. He had Dura Ace (Summer) and Ultegra (Winter) hubsets, both with double-buttet stainless spokes, Mavic rims, and nickel nipples, pretty much bombproof. He'd rotate sets, always 1 set on standby with new tires, since he went through tires every 4 to 6 months. Unlike cassettes and chains, you can reuse good hubs, if properly serviced, almost forever.

Despite all his diligent maintenance, a few times rear derailleur cable snapped. On mountain bikes, this usually means you're stuck in granny gear, but on his roadie it was the opposite, speed gear, meaning it would be hard to crest any steep hill in remaining 30 miles until home. He tied cable up; couldn't leave it to dangle. Pulling it tight and working it around bottle cage, he could still pull on it by hand to shift a gear or 2 for steepest grades, although that caused it to stretch and surrender its effectiveness gradually, while he freewheeled downhill and limped back. Best to replace cables in a shop, since you have to adjust derailleur after to ensure proper shifting. Good local bike shops which charge reasonable prices for competent service are a welcome boon, he would admit if ever he found one.

Bicycling's unspoken secret is suffering. While a slap may sting then abate, parking your butt on a saddle for hours may present long lasting pain, for weeks or months, permanent damage if not careful. Your first few thousands miles is mostly butt pain and lactic acid burn. You might try exchanging saddles. He had found a longer, narrower, unpadding unit fit him better, less likely to bulge or bunch, more places to park butt. Saddle must support your pelvic sit bones, ischial tuberosities, those 2 bumps that you can

feel if you crouch down onto a curb or fence rail. Eventually settled on an old fashioned leather model; they breathe, conform eventually to your anatomy, cradle your sit bones, and don't form hot spots. Padding is best accomplished by biking shorts. While there's no such thing as "monkey butt", chamois (or diaper) cream will help deter or relieve sweat induced rashes. Internal thigh burn was another matter. Tried various dietary modifications and supplements. Needed plenty of calcium, magnesium and potassium from a diet rich in fruit (apples, bananas, figs) and skim milk. Tried calcium citrate, ginseng, sports bars, sports drinks. Few things helped except electrolyte replenishment and rehydration. Sometimes moderate thigh burn feels better than denying your urge to poke about in places you've never been before because you were too lazy to try. Riders often focus on this burn to exclusion of all else, look for hills to bring it on. For him, hills shorten a ride's duration, counterproductively, since riding's biggest benefit was prolonged heavy breathing. To avoid cramps after long rides he simply bathed in warm water and covered up with warm clothing, fleece, heavy cotton or wool. Did this even in Summer. Cold air or ice can seize strained superheated muscles, like a wrench tossed into wheelworks. A bad charleyhorse could stand you up in excruciating pain from a sound sleep. You ought not indulge unless you maintain a supply of nonsteroidal analgesics and strong liniment.

There are some chronic conditions bicyclists get from poorly adjusted bikes ridden great distances. Back and spine sprains, collarbone dislocations, forearm/wrist pain, knees that squish—they have some Greek name for it that he couldn't remember—neck injuries. When you crank while seated with a saddle too high, bike lunges from side to side. Legs should be mostly extended at bottom turn or saddle is too low. Shoe position in cleats is also important to where saddle should be; you have to figure in foot length, too. Handlebars ought to be below saddle level and far enough forward to stretch you out slightly but not so much that you can't bend elbows, which act as shock absorbers. Saddle should be level from butt to horn, even if it dips in middle, or tilted slightly up in front; use a spirit level. If your saddle position is too low and seat post is not set at 90° (few are), that means you should raise post, then move saddle forward to counteract it migrating astern. Backward or forward position must be set so that a plumb bob held to the front of your knee hangs down to intersect ball of your foot. This is important, or you will not get maximum thrust from cranking. Notice how you can crank harder when you stand?

Racers like saddle set aggressively forward so they're practically always standing. For them, saddle is for steering, not resting. Novices like it back, because they are in no hurry and don't yet know this stuff. Try to level scale between comfort and power. If your saddle is precisely positioned, you seldom have to stand except for steepest hills. Anyway, you control bike best while seated. A saddle should never be twisted out of line with axis of frame. Anything misaligned, which you might not notice on short rides, is going to cause trouble over long. Charts showing all these adjustments are available; ask at any bike shop. A certified pedorthist can adjust your bike, cleats and shoes, even make custom orthotics that conform to soles of your feet and help transfer power better. A generic pair of orthotics at \$25 will be superior to what comes with shoes.

One emailer complained of breaking spokes. On par with cables or drive trains, spokes are an important working component. They flex to translate torsion of hard pedaling into forward momentum as well as keep wheel relatively rigid and wobble free and take up shock. Cheap, flexible rims with weak nipples, which generally come with floor models, and, mostly, inferior hubs, lead to breakage. He spared no expense to replace wheels with custom made, but, if you're patient and shop around, you can find a decent wheelset from \$300 on sale. That said, you still have to steer around holes as best you can, and ward off slamming wheels by dropping bike, letting it bang around while transporting, or stacking bikes side by side so pedals crush against them. If you ignore a broken spoke, wheel will go out of true then rim rub on brake pads, which slows you down, or, worst case, get caught in frame and jam wheel, so you go over handlebars. If a spoke breaks during a ride, you should remove it; loosen nipple and unhook it from hub. If you can't, carefully thread it around other spokes so it can't come loose, then repair before riding on that wheel again. Once trued, wheels settle in slightly out of true, and require a second fine adjustment, which is normal.

Cycling's not for everyone, but few wouldn't benefit from it: fresh air, gentle training, substantial weight loss, and superior overall health. Some think of workouts as something they do to be fit for more workouts. Why bother getting fit, just skip workouts altogether? But then you'd have to stop overeating, too, stifle another of life's pleasures, take away more and more until there's no reason left to live. Girls and guys say they want to be with whomever they think is cute, send pictures of potential dates over blackberries, subscribe to foolish services. Despite all practice

and preening, you may never attain a perfect physique according to someone else's ideal. But you can become enlightened, possess extraordinary grace and mental beauty, which are more highly valued by those with whom you'd really want to be. His morning 12 miler was great that Winter's day, wind at his back, sweating in 3 light layers. Needed a session of aerobics at least a few times a week, Winter included. Pedaling nicely sufficed.

How can you follow physical fitness Nazis that want you to do exactly as they do? If he felt like doing jumping jacks while they were marching in place, so what? One should scrutinize whatever they ask, because most videos you see are ridiculous. Marching and twisting motions do practically nothing. Yoga stretches muscles, to be sure. Calisthenics employ resistance to strengthen, as does lifting weights. But these are anaerobic. Dance steps are supposed to get your heart working in a low impact way, but bicycling does it far better, moves you through space, plus expands your mind. If you're going to exercise, at least do something worthwhile, not some idiotic failing about. Biking evidences a superior mind, is sensible, provides a hopeful sign. A century earlier H. G. Wells gushed, "When I see an adult on a bicycle, I do not despair for the future of the human race." Take heart that anyone still does amidst rampant ease addiction, future bliss on the brink, headed over edge. "Lust for comfort suffocates the soul," complained Björk. Every trip you make by bike symbolizes a clean, clever, gentle, globally conscious, poverty concerned, resource sensitive outpouring of love. A small gesture, but what is society but billions of small gestures?

Interesting when things turn bad. His wife called 1 afternoon wondering if he needed a ride home. Was snowing there. Laughed and told her, "Forget it." But it *was* a rough 17 mile return with strong, variable winds, mostly head on, nasty traffic, and slippery wet. Arrived 55 minutes later than his typical hour. Wind is always a hassle to anyone tall and wide. Mornings usually start calm, but he always dreaded returning against prevailing gales. Dry cold is better than damp cool, but temperature matters, because ice forms. You'd think cold, dark, snow and wet would stop him, but he found ways to deal with them all. Only a threat of ice did. One evening he hit 60 feet of ice, fishtailing and trying desperately to stay upright. Being clipped in probably kept him from losing balance. Would never again trust platform pedals. Afterwards, always stopped and walked around ice sheets. Began investigating studded Nokian tires, a bit of overkill unless ice and snow are ubiquitous.

There was only 1 reason that persistently recurred as a barrier: *ennui*. Once depression settled in between rides, he could go whole weeks or months without. Riding a century was always presented a risk that he'd take several days to recuperate, only to land in a funk and lose interest altogether. Alcohol consumption had a similar effect, a chemical imbalance in blood that led to inertia and lethargy. For some cultures alcohol is customary, a daily regimen or mental and physical riot once a week. It just made him feel sick and pushed him behind a steering wheel. Pedaling a quick 10 miles, just enough to break a sweat, he felt better, got back on track, and slept deeply without tortured dreams.

Biking was a good way to prepare for assiduity, hard work, important meetings. It distinctly sets you apart as a better-than-thou, pain-in-the-ass corporate ladder climber universally despised by hung over, motoring exclusive coworkers. Anyway, the worst part of any ride was during first 5 miles, in which you acquire rubbery legs, fill lungs, and oxygenate blood. Once this barrier was bashed, riding for several more hours became almost effortless.

