

The Oil Drum: Campfire

Discussions about Energy and Our Future

Dopamine Returned on Energy Invested (DREI)?

Posted by [Jason Bradford](#) on July 1, 2009 - 10:15am in [The Oil Drum: Campfire](#)

Topic: [Sociology/Psychology](#)

On a steamy Friday night my 10 year old son and I headed over to the rodeo grounds. It is only about a mile from our home and within the city limits, though on the eastern edge where the town merges into the valley landscape of pastures and tree-lined creeks and ditches.

As we approached, it was obvious that a large crowd had gathered. A long line extended from the ticket booth and the stands looked nearly full. Friends had tipped me off about what was going on only 10 minutes earlier, while thousands of others had obviously been looking forward to this event.

It was a truck and tractor pull.



On a hot summer night truck pull fans fill the stadium at the rodeo grounds in Willits, CA. Behind the dust is a weighted sled, called Terminator, that eventually forces the truck to stall. Truck pull images by [Ree Slocum](#).

I place this sport in the same category as NASCAR, demolition derby, drag racing, and motor cross: An internal combustion engine of one sort or another propels a vehicle with a driver. Speed, power, agility, longevity or luck may sort among winners and losers. In this particular version, a weighted sled steadily increases the resistance the further it travels. Vehicles pull until they stop, usually in an engine stall and a cloud of dust.

Because Willits is a relatively small town, anonymity is not possible once you become involved in community affairs. I am on the board of a couple of non-profits related to energy and

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sustainability, have a radio show on a local station, two kids in the school system, and run a small farm that serves local customers. I brought attention to the subject of peak oil in October of 2005 by showing the film [The End of Suburbia](#) every other week for about a year.

I offer this background because people who know me would likely surmise (correctly) that if I were “supreme ruler” nothing like this would ever happen.

I asked a city councilor in attendance (the same person who alerted me to its occurrence) if this event is in conflict with the City’s pledge to reduce greenhouse gas emissions 90% below 2005 levels by 2050, a goal I had a hand in developing? The City of Willits and a who’s who of community organizations also signed a [sustainability vision statement](#) I wrote. Was this part of that vision? She just smiled and remarked that energy isn’t expensive enough yet.

I was recognized by a member of the Frontier Day’s Committee, which are the folks who run the rodeo grounds. He sided up to me to verbalize how he saw the equations balancing out with respect to the spectacle. “Using a lot of fuel, aren’t they?” He spoke directly into my ear to compensate for the cylinder blasts. “But you know, this is a big crowd and it really helps us cover the cost of our lease. It’s the first time we’ve done this.” I simply smiled and gave a nod.

The crowd was big. Ten times bigger, in fact, than any I had been able to attract with notions of peak oil, economic collapse, relocalization, renewable energy, sustainable agriculture, or a host of other hot topics. What should I make of that?

My son shouted out a running commentary that reflected my own mixed emotions. As the announcer explained in testosterone-laden tones, the turbo diesels spent about a minute “Building their Boost!” before releasing the clutch. During this process, black soot emerged from pairs of thick chrome pipes to neck craning heights, which served to tense the crowd. On several such occasions my son looked up at me to say, “They’re polluting the Earth!” And yet, perhaps ten seconds later as the truck stalled some 300 ft down the dirt track we whooped excitedly with everybody else.

Our brains were being whip lashed by dueling neurotransmitters. The neocortex was giving us one signal, namely “Polluting Earth Bad,” while the limbic system was giving us countervailing signals, specifically “THIS IS SO COOL!” In fact, that is the other phrase my son used often that night. So on a cycle that repeated every several minutes, I would pump my fists and shout “YEAH!”, but as the rush of dopamine waned, nagging concerns regarding the energy expenditure would re-emerge. Sometimes the motions of a really fine vehicle, such as the ones propelled by jet engines, would keep me “amped” even while the track was being prepared between runs by rumbling dozers, rollers, and the periodic water truck. (I am not going to delve into the neurophysiology and evolution of the brain in this post. Please see [this one](#) instead.)



I found myself drawn to the particular form of White Lightning. It wasn't of the largest class of trucks, and the length of its pull disappointed somewhat, but the elegance of its lines and the beauty of its exhaust flames can't be denied.

It wasn't only the fuel injection on a 2000 hp engine going full tilt for 10 seconds that bothered me, but the knowledge that these beasts were coming from all over the state. The names of the vehicles I remember include White Lightning, Semper Fi and Get it Done (which ended up being the big winner, pulling the Terminator sled over 350 ft, dragging it out of bounds and finishing in a perilous side-ways slide). The geographic names included San Luis Obispo, Red Bluff and Bakersfield. And my son and I constituted the majority of the subpopulation that made it to the rodeo grounds via the most energy efficient transportation device every made—the humble bike running at less than one horsepower and burning non-fossil carbohydrate fuels.

I don't want anybody to get the impression that I judge the people who regularly attend diversions such as the truck pull much differently than my own cohort. The following is a list of low Dopamine Returned on Energy Invested (DREI) activities undertaken by friends and family. These are people who I have personally addressed on the subjects dear to readers of The Oil Drum, and some of them even help me try to "save" civilization, the planet, and other important stuff.

- Fly to Las Vegas to see Cirque du Soleil. This is remarkably common and not limited to any one individual. The most recent "must see show" was [The Beatles Love](#), and I admit it looks awfully tempting!



Although I have not seen the performance, I gather from this image that I would be pleased by it.

- Spend a week on a Cajun Dance Cruise ship. My wife and I are invited to this one yearly, and it is especially difficult to pass up.
- Ski in the Rockies. Ski in the Sierras, etc.
- Vacations in Europe, Asia, etc.

I haven't done any carbon footprint analysis to compare the truck pull to the diversions more in line with my own tastes and those of my peers. Obviously they all use gargantuan amounts of energy.

I am a firm believer in the notion that the one-time endowment of Earthly oil should be viewed as a precious gift, and that if any of it needs to be used to it should be allocated towards deploying the technology and infrastructure that would lower our ecological footprint enough not to despoil our home. Anytime I see gallons of fossil fuels being burned I realize that the btus released are enormous, dwarfing the potential power output of human bodies or domesticated animals. Without a renewable energy infrastructure in place before depletion of oil sets in, I fear social convulsions of the worst sort. For example, if we lose our energy slaves will we somehow justify human ones again?

And yet we burn it up so frivolously. This final quote from my son summarizes the situation aptly: "Dad, this is so crazy!"

Nate Hagens and I discussed this topic as part of [one of our radio interviews](#). On that program Nate recommended trying to discover diversions that use little energy, in other words, have a high DREI. I doubt most of the crowd at the truck pull had listened to any of my shows. But even among those of us "in the know," a challenge we face is dealing with the addictive aspects of

On the way back home I met John Jeavons and related my recent experiences. He commented on a time in Mexico, where he was teaching [GROW BIOINTENSIVE](#) farming in a workshop. It was in a port city and one day an impressively enormous cruise ship loomed over the docks, its thousands of passengers disgorging into the streets and tourist shops. He thought about the amount the urine and feces produced each day on a ship like that, how much food could be grown with it, and knowing that the mineral wealth of the modern food system and the resulting effluent came from mines and natural gas wells that were low entropy geological riches scooped up using machines running on oil...and yet it was all being dispersed into the ocean.

We like to share stories on Campfire. So I'd like to hear from you about the following:

1. Have you been able to move away from low DREI habits and replace them with high DREI ones?
2. What experiences have you had like mine and John Jeavons', being simultaneously awed and disgusted by the excesses of our world?
3. Why should I deprive myself of the great hedonistic pleasures of the age of oil if I can still afford them since very few others willingly curtail?
4. Is information sufficient to change behavior, and if not, what does?
5. I recognized very few faces at the truck pull, even though I live in a small town. What does this say about the cultural diversity of society and does that diversity make it more or less challenging to adapt to change?

Story Update: Coverage of the event in [The Willits News](#) is now available.



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