

marized in Chapter 17 of the book, and other evidence from high-intensity enriched-environment programs, point in this direction. This evidence is also consistent with the work of Thomas Sowell, who stresses the role of culture and values in shaping the expectations and motivations of young children. Job training and education are generally wasted on low-IQ adults. For this group, subsidies for employment may be justified, especially if work improves social behavior or is valued for its own sake. Economic efficiency is promoted by investing in the young. There is much evidence that learning is a cumulative, dynamic process. Learning begets learning. It is much easier to galvanize a young child than an illiterate young adult.

Future research should focus on growth and development in measured ability prior to age 15 (the age of the youngest person in the Murray-Herrnstein sample), because existing research indicates that values are formed and cognition is developed prior to that age. Genes may play some role, but culture and environ-

ment also contribute to ability and motivation. Much serious research in psychology indicates that motivation and attitude are as important—and possibly more important—for success than is raw IQ.

As for social policy, we should recognize that heterogeneity in experiences and endowments produces a wide range of cognitive skills and motivations. For a variety of reasons, treating persons fairly as individuals may lead to heterogeneity in outcomes among demographic groups. Denying individual heterogeneity by treating persons as members of demographic categories will produce disparities in productivity among demographic groups, reduce economic efficiency, and foster a sense of injustice among all participants in society. ♦

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## Orwell That Ends Well

By Rich Karlgaard

**Orwell's Revenge: The 1984 Palimpsest, by Peter Huber, New York: The Free Press, 374 pages, \$22.95**

**G**EORGE ORWELL: *SINCE YOUR DAY something has appeared called totalitarianism.*

Jonathan Swift: A new thing?

Orwell: *It isn't strictly new, it's merely been made practicable owing to modern weapons and modern methods of communication.*

Orwell himself penned those lines (and read them aloud on his BBC wartime broadcast in 1942) in "Jonathan Swift: An Imaginary Interview." While Orwell's sentiments were his own, he cut and pasted together Swift's from the Irish-born satirist's estimable *oeuvre*. The re-

sult is a virtual dialogue between two of Great Britain's sharper minds, one remembered chiefly for *Gulliver's Travels* and "A Modest Proposal," the other best known for his 1948 anti-totalitarian novel, *1984*.

Now Peter Huber, a Manhattan Institute fellow and *Forbes* columnist, has used the same technique to create *Orwell's Revenge: The 1984 Palimpsest*. (A palimpsest, the back cover helpfully reminds the reader, is a document that has been written upon several times, "often with remnants of earlier, imperfectly erased writing still visible.") Unlike Or-



**Peter Huber:** Rewriting Orwell so telecommunications technology leads to freedom

well's, though, Huber's instruments of inventive plagiarism aren't scissors and glue, but more modern ones: a Hewlett-Packard flatbed scanner, Calera optical character recognition software, the Xy-Write III+ word processing program, and a fast 486 PC.

First, Huber scanned *1984* and everything else by Orwell he could find into his computer: novels, essays, BBC broadcasts—all told, a whopping 9.5 megabytes of Orwellian thought. Then Huber went to work, constructing an imaginary conversation between himself and Orwell, deploying Orwell's own language and imagery.

The stunning result is two books, to be read simultaneously: a "novel" that stars a protagonist named Eric Blair (Orwell's real name) and picks up where *1984* leaves off, and a running criticism of the historical George Orwell's literary career and intellectual mindset.

The novel part is a fetching read. In it, Huber cleverly jujitsus Orwell's own words into startlingly different conclusions than they held in their original contexts. Black has indeed become white (but unlike in Orwell's dystopia, freedom is not slavery, nor ignorance strength). Instead, *1984*'s most memorable symbol of the all-pervasive state, the omnipresent telescreen, becomes an instrument of proletarian revival in Huber's hands. In Orwell's novel, the telescreen meant, "You had to live...in the assumption that every sound you made was overheard,

and...every movement scrutinized." But in Huber's world, rather than inhibiting activity, the telescreen breathes life into the soul and the marketplace and eventually brings down the government and its ministries.

As author of *The Geodesic Network* and one of the country's top telecom experts, Huber knows his networks and computers—better than Orwell could have known in 1948, certainly, or even today, were Orwell alive. (Orwell was, not surprisingly, something of a Luddite.) Early on in *Orwell's Revenge*, we are informed that the dumb-terminal telescreen network of 1984 was replaced by a client-server network. Why? Imperial overreach. The Ministry of Truth had "demanded a system powerful enough to reach every room, to revise every record, to overwhelm every other form of communication." And so the old wires were "ripped out, vast bundles of them, tons and tons of

useless copper, replaced by a few dozen of the new, orange-rubber rings."

For 10 years, the new network does the trick. The system is "robust," it is "fault tolerant," it operates "peer-to-peer." No single screen, no single cable can bring down the whole network if it fails. The network itself is almost annoyingly simple. The cables run through the tunnels, with branches leading off into every apartment and office. Directly or indirectly, all points on the network are connected.

For Huber, of course, that interconnection is precisely the government's undoing. It isn't long before a few of the "phreaks"—the techno-wizards who turn the state's surveillance apparatus against itself—figure out the potential for decentralization inherent in the system. They begin altering the telescreens so as to shut off propaganda from the central ministries. That's step one. Better yet, they learn to exploit the peer-to-peer architec-

ture to communicate among themselves. Result: Free thought and the marketplace are reborn.

**M**IDWAY THROUGH THE NOVEL, HUBER'S Eric Blair stumbles into what was once the worst part of Airstrip One (i.e., London) only to find that it has become the best part of town. "Soon the air was filled with a hubbub of similar human exchange," writes Huber. "The passers-by were increasing in number, and instead of shuffling along, they strode firmly down the road... The street was so crowded that you could only with difficulty thread your way down the alley between the stalls. The stuff on the stalls glowed with fine lurid colors—hacked, crimson chunks of meat; piles of oranges and green and white broccoli, stiff, glassy-eyed rabbits; live eels looping in enamel troughs; plucked fowls hanging in rows, sticking out their breasts like guardsmen naked on



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parade. His spirits rose at the sight of all the activity. It was delightful—the noise, the bustle, the vitality. For a moment the sight of the street market persuaded him there was hope for England yet.”

The government is powerless to stop these unintended consequences. No one in the ministries even knows how the network works anymore, since all the knowledgeable technicians have been long exterminated or shipped to labor camps. The government’s own “experts” are stumble bums, and the portraits of them are among the book’s funniest passages. At one point, for instance, Ministry official O’Brien (1984 readers will remember him as Winston Smith’s torturer), asks a lackey about the surveillance installations:

“Burgess twitched, and his face drooped. ‘Well, it has to do with the blue box, you see. After the screen’s mounted, we use the box. This part’s really complicated. But it’s in the manual—all in the manual.’

“‘These manuals that you use—’ O’Brien hesitated again. ‘I wonder if there might be some simpler explanation of it all. Something for a nontechnical chap like me. Or do you—better still—that we might locate one of the engineers who helped write it? Someone from the ’80s, perhaps?’

“Burgess gazed back expressionless. ‘We could look. Can’t say that I ever met any of the old guard. Most of them turned out to be saboteurs.’ He spoke with increasing vigor, and the spittle began to gather at the corners of his mouth. ‘Completely unreliable, most of them. Not really Party men at all.’”

Throughout *Orwell’s Revenge*, Huber returns to a central question: How could Orwell, a writer so alert to the machinations and evils of totalitarianism, see capitalism and communications technology as tyranny’s friend, rather than its undoing? Huber accuses Orwell of giving in to emotion. He hated the radio, and by extension all communications technologies, because of Josef Goebbels’s brilliant use of them in spreading Nazi propaganda.

Orwell’s contempt for capitalism was

even less rational. Huber traces it to the Dickensian miseries young Orwell suffered at Crossgates, the boarding school he attended on scholarship before going on to Eton. Orwell wrote about it in his novel, *Keep the Aspidistra Flying*: “The very rich boys were more or less undisguisedly favoured; the poor but ‘clever’ scholarship boys didn’t go riding, didn’t get a cricket bat, didn’t get a birthday cake, were caned more often, were publicly reminded of their poverty, and were expected to be snivelingly grateful to Crossgates for its charity.”

**Huber’s “palimpsest” should have come out 10 years earlier. After the collapse of communism, after Tiananmen Square, no serious thinker can credibly suggest that computers and advanced telecommunications favor the state.**

If Huber’s “palimpsest” has one major flaw, it is timing: It should have come out 10 years earlier. Not only because the publication date then would have matched 1984’s famous title, but because the implications of computer networks as an instrument of freedom were less obvious a decade ago than they are today. After the collapse of communism, after Tiananmen Square, no serious thinker can credibly suggest that computers and advanced telecommunications favor the state.

**I**N 1994, IN FACT, THE ARGUMENT HAS moved decisively in the other direction. Instead of arguing that emerging technologies will create a hyper-centralized brave new world, many now fret that ever-advancing PCs and broadband networks are balkanizing society into smaller

and smaller niche markets. Critics from Charles Murray to Robert Reich look into the future and see an ever-wider skewing of the info-rich and the ignorant poor, with combustible consequences.

REASON readers will like how Huber cleverly addresses this important ’90s debate. Late in *Orwell’s Revenge*, he stages a debate-to-the-death between the high-ranking party official O’Brien and a jailed phreak:

O’Brien: “You will be astounded at how quickly your new world of free choice becomes ugly and depraved.... Free choice on the telescreen will bring about a frightful debauchery of taste.... kicking little girls in the head will be O.K.; a film of a woman defecating will be O.K.... Place every telescreen under private control, and the masses will wallow in filth far worse than the rubbishy entertainment and spurious news the Party supplies today.”

Phreak: “Some, as you predict, will anesthetize their minds with visual opiates peddled over the network. But others will use their new power to choose wisely. In the cataract of information of the tele-screened world, the most important right will be the right not to listen, not to speak, and not to share one’s thoughts, words or gestures. Freedom of thought, freedom of assembly and religion, copyright and privacy, all pivot on a single, higher right: the right to communicate by mutual consent with other individuals possessing the same dignity, the same power of choice. That is the promise of the telescreen.”

O’Brien: “By encouraging necrophilic reveries, a depraved artist may do quite as much harm as by picking pockets at the races. Private pornography inspires public violence. Private scheming and conspiracy culminate in fraud, extortion, or blackmail. The individual’s freedom becomes the community’s slavery. Freedom is slavery.”

Phreak: “Freedom is sanity.... The telescreen will give us necrophilic reveries, but it will also create room for the art of angels. It will supply passion but also reason. It will spread propaganda but also

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private discourse. It will give us spies, but also distance us from them. It will carry the proclamations of generals before battle, the speeches of fuhrers and prime ministers, the solidarity songs of public schools and left wing political parties, national anthems, temperance tracts, papal encyclicals and sermons against gambling and contraception—and it will also carry the chorus of raspberries from all the millions of common men to whom these high sentiments make no appeal. The network empowers electronic thugs at one end and the Thought Police at the other. But in the middles stand the great mass of men, simple, honest, and sane. So long as common men use the network too, their basic sanity will prevail. Freedom will be freedom.”

O'Brien: "But not equality?"

Phreak: "No....Only one kind of human equality will survive the telescreen....The only kind of equality that men have the power to affirm. It is equal opportunity—an equal chance to converse, trade and collaborate with others by mu-

tual consent. The telescreen offers equal dignity, nothing more. All other kinds of equality belong to Big Brother.”

O'Brien: "So your glorious fantasy is not so glorious after all....Your telescreen will create wealth, it will distribute culture, it will educate the masses. Equality is therefore inevitable. A socialist utopia is at hand. Why do you insist that equality will not come?"

Phreak: "Some will use their telescreens for education, others for lotteries. The talented or industrious will embrace the new opportunities; the lazy or foolish will sink into tele-induced stupor. Hierarchies will not disappear. They will simply come to mirror inequalities among men themselves.”

With rigor and flair, Peter Huber has produced a palimpsest that no serious student of Orwell, totalitarianism, or freedom can afford to ignore. ♣

*Rich Karlgaard is the editor of Forbes ASAP, a technology magazine based in Redwood City, California.*

## How Green Is Our Valley?

By Alexander Volokh

**Nature's Web: Rethinking Our Place on Earth, by Peter Marshall, New York: Paragon House, 513 pages, \$29.95**

**No Turning Back: Dismantling the Fantasies of Environmental Thinking, by Wallace Kaufman, New York: Basic Books, 212 pages, \$25.00**

**The Green Crusade: Rethinking the Roots of Environmentalism, by Charles T. Rubin, New York: The Free Press, 312 pages, \$22.95**

**W**HAT DOES IT MEAN TO "SAVE the earth"? In 1915, a Congressional hymn summed it up this way: "The Wilderness is planted, the deserts bloom and sing; on coast and plain the cities their smokey banners fling." Smoke used to be a beautiful thing. This was back when it was unheard of to oppose a policy with the question, "Ah, but how will it affect the trout?"

Nostalgia isn't what it used to be. Today, every major public-policy decision pays at least lip service to trout. The original environmental prophets are mostly forgotten, but their pearls of wisdom have become second nature to us anyway. "Small is beautiful." "Everything is connected to everything else." "Limits to growth." "Balance of nature."

We're all environmentalists now.

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