Title
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What Orwell Didn't Know
About the Brain, the Mind, and Language

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George Orwell will forever be a hero of mine. When I read 1984 in high school, I became sensitized to the workings of propaganda. After more than 40 years as a linguist and cognitive scientist, I remain sensitized.

When I first read “Politics and the English Language” as an undergraduate in the late 1950’s, I loved it. Nearly 50 years later I find it an anachronism. Why? I, and those in my profession, have learned a lot about the brain, the mind, and language since then.

Orwell suffered from what we might call the "Editor’s Fallacy": Bad habits of "foolish thought" and inaccurate, slovenly, dull, pretentious, ungraceful, and meaningless language — the "decay of language" — lead to political propaganda and its effects. If we just "let the meaning choose the word," he claimed, we would all be saved. This is not only false, it is dangerously naïve.

Orwell fell into traps — false views of language: Meanings are truth conditions. Words have unitary meanings. If people are told the truth, they will reason to the right conclusions — unless they are stupid or ignorant. And ignorance can be cured by truths conveyed in good prose.

All of that is false. Yet progressives still fall into those traps. Even you, dear reader, may have fallen into them. And even I am trying to cure ignorance via truths conveyed in good prose. I am banking on cognitive dissonance — yours! Intellectuals are confident they know their own minds, though they realize
they don’t know their own brains. But their brains betray their confidence in their minds. Neuroscience and cognitive science reveal a far more interesting picture than Orwell could have guessed.

Probably 98% of your reasoning is unconscious — what your brain is doing behind the scenes. Reason is inherently emotional. You can’t even choose a goal, much less form a plan and carry it out, without a sense that it will satisfy you, not disgust you. Fear and anxiety will affect your plans and your actions. You act differently, and plan differently, out of hope and joy than out of fear and anxiety.

Thought is physical. Learning requires a physical brain change — receptors for neurotransmitters change at the synapses, which changes neural circuitry. Since thinking is the activation of such circuitry, somewhat different thinking requires a somewhat different brain. Brains change as you use them — even unconsciously. It’s as if your car changed as you drove it, say from a stick shift gradually to an automatic.

Thought is physical in another way. It uses the brain’s sensory-motor system. Imagining moving uses actual motor regions of the brain; imagining seeing uses actual visual regions of the brain. Meaning is mental simulation, activating those regions of the brain. Reasoning from A to B is the neural activation of the mental simulation of B, given the mental simulation of A. Mental simulation, like most thought, is mostly unconscious.

Thought is structured, in large measure, in terms of “frames” — brain structures that control mental simulation and hence reasoning.
You think metaphorically, perhaps most of the time. Just by functioning with your body in the world as a child, you learn at least hundreds of simple “conceptual metaphors” — metaphors you think with and live by. For example, Quantity is understood in terms of Verticality (More is Up), and the words follow along: *prices rise and fall, skyrocket and hit bottom.* Why? Because every day of your life, if you pour water into a class, the level rises. You experience a correlation between quantity and verticality. In your brain, regions for registering verticality and quantity are activated together during such experiences. As a result, activation spreads and circuits linking Verticality to Quantity are formed. Those circuits constitute the metaphor More is Up in your brain. As a child lives in the world, his or her brain acquires hundreds of such “primary” conceptual metaphors that are just there waiting to be used in everyday thought.

We have high-level moral worldviews — modes of reasoning about what’s right and wrong — that govern whole areas of reason, both conscious and unconscious, and link up whole networks of frames and metaphors.

Cultural narratives are special cases of such frames. They stretch over time and define protagonists and antagonists — and heroes, victims, and villains. They not only allow you to understand stories, with associated emotions, but they cultural narratives that define what is right and wrong can be lived out, and come to define a personal identity.

When we learn words, we are learning neural links to such frames, metaphors, and narratives. When we hear the words, not only simple frames and metaphors are activated, but also all the high-level worldviews, associated
narratives, and all the emotions are activated. Words are not just words — they activate a huge range of brain mechanisms. Moreover, words don't just activate neural meanings; they are often defined relative to conservative framings. And our most important political words — freedom, equality, fairness, opportunity, security, accountability — name “contested concepts,” concepts with a common shared core that is unspecified, which is then extended to most of its cases based on your values. Thus conservative “freedom” is utterly different than progressive “freedom,” as I showed in detail in Whose Freedom. Liberals like Paul Starr, in Freedom’s Power, unselfconsciously use their own version of freedom, as if there were no other version. Not understanding conservative “freedom” and pointing out its problematic nature greatly weakens one’s effect.

A few words in political language can activate large portions of the brain: war on terror, tax relief, illegal immigration, entitlements (a word created by Ronald Reagan), death tax, property rights, abortion on demand, cut and run, flip-flop, school choice, intelligent design, spending programs, partial birth abortion, surge, spreading freedom, private accounts, individual responsibility, energy independence.

When they are repeated every day, extensive areas of the brain are activated over and over, and this leads to brain change. Unerasable brain change. Once learned, the new neural structure cannot just be erased: War on terror be gone! It doesn’t work. And every time the words are repeated, all the frames and metaphors and worldview structures are activated again and strengthened — because recurring activation strengthens neural connections.
Negation doesn’t help. “I’m against the war on terror” just activates the *war on terror* idea and strengthens what you’re against. Accepting the language of issue and arguing the other side, just hurts your own cause.

Can you counter such brain change? There are two possibilities. First, you can try to mark the idea — as silly, immoral, stupid, and so on — by having lots of people say so over a long period of time. That’s what conservatives did with “liberal” starting back in the 1960’s when most people wanted to be liberals. *Tax and spend liberal, liberal elite, liberal media, limosine liberal,* and so on repeated over and over slowly got across the idea to lower and middle class republicans that liberals were elite, financially irresponsible, and oppressing poor conservatives.

The second strategy is provide an alternative honest framing — either by inhibiting what is in the brain or by bypassing it. Done dishonestly, it is called “rewriting history.” Conservatves have done this with the Vietnam War: We lost because we didn’t use enough force — *“We had one hand tied behind our backs.”*

Neither is quick or easy.

Today, sophisticated right-wing propaganda is very well-written — the editor in Orwell would love David Brooks’ prose. Mind control works via brain change, through the effective use of well-written language to activate not just frames, conceptual metaphors, and emotions, but whole worldviews. When the language is repeated and the words become just “the normal way you express the idea,” then even the best people in the media get sucked in. Journalists have
to use words people understand, and they have to use the words most people
normally use to express the ideas they are writing about. As a result, they often
have no idea that they are using conservative language, which activates a
conservative view of the world as well as the conservative perspective on the
given issue. They are rarely aware that in doing so, they are helping
conservatives by strengthening the conservative worldview in the public’s mind,
and thereby accelerating brain change.

Once a member of the public has undergone brain change, he or she then
thinks as a conservative on the issue. Not convinced rationally, just subject to the
techniques every marketer uses. Is free will being exercised? The very idea of
“free will” has been changed.

Orwell wasn’t aware of how brains, minds, and language really work, nor
was anyone else in 1947. But we don’t have that excuse today. Yet even the very
best of our news media are stuck in the same traps. Every now and then a result
about the brain will leak out into the *Science Times* or *Discover* and then be
forgotten the next week. But what we know about the brain, the mind, and
language barely ever makes it to the front page or opinion pages where politics is
discussed. The ghost of Orwell still haunts ours very best news and political
opinion media.

His old views about reason and language also haunt the Democratic party.
As of this writing (in early July 2007), only John Edwards has rejected the very
term *war on terror* an inappropriate metaphor and a means to grab power. In the
Democratic debate in New Hampshire, Wolf Blitzer’s questions were all framed
from a conservative viewpoint. Only Barack Obama had the sophistication to step forward and reject one of the questions as “specifically designed to divide us.”

Many Democrats, not understanding worldviews, cannot see beyond their own. Robert Borosage, in *The American Prospect*, got halfway there.

“Conservatives cannot be trusted to guide the government they scorn. Not because they are incompetent or corrupt (although corruption and incompetence abound), but because they get the world wrong.”

This ignores the thousands of conservative “successes” from *their* point of view, which Borosage cites as “failures.” In hundreds of cases (excepting Iraq — a big exception), conservatives would say that Bush got the world right — because he got his way.

(See [http://www.rockridgeinstitute.org/research/lakoff/incompetent](http://www.rockridgeinstitute.org/research/lakoff/incompetent) and [http://www.rockridgeinstitute.org/research/lakoff/framingkatrina](http://www.rockridgeinstitute.org/research/lakoff/framingkatrina))

If Democrats think that those who voted for Bush will consider all those “successes” as failures, they might just find a way to lose the next election.

Moral: To counter conservatism, you have to understand the conservative moral worldview. And to do that, you need to know how largely unconscious worldviews work.

Conservative think tanks, over 35 years, started with the conservative worldview and show how to apply it everywhere on every issue, and even beyond issues in the acts of governance — cutting regulating budgets, reassigning regulators, using the courts to redefine the laws, changing the facts on websites, eliminating libraries. New Democratic think tanks haven’t helped
much. The problem is that they are policy think tanks. They mistakenly think that “rational” programs and policies constitute political ideas. They don’t understand unconscious thought. It’s the unspoken ideas behind the programs and the policies — the worldviews, deep frames, metaphors, and cultural narratives — that need to be changed in the public mind. Only one progressive think tank, the Rockridge Institute, is even working in this direction. Its handbook for progressives, Thinking Points, applies the study of mind to the cause of truth.

Is it legitimate to use the real mechanisms of mind — worldviews, frames, metaphors, emotions, images, personal stories, and cultural narratives — to tell important truths? Hell, yes! It is usually the only way that works. Al Gore’s movie, An Inconvenient Truth, uses all those mechanisms of mind and heart — and it works. Had it just given facts and figures unframed, it would have flopped.

It is time to exorcize Orwell’s ghost. We all need to understand how the brain, mind, and language really work. We need to apply that knowledge effectively to make the truth meaningful. Our democracy depends on a clear and open understanding of the political mind.