

## **Energy and Psyche: Resource Addiction in the Technological Age**

By Joseph Wilkerson

*This article was originally submitted as a term paper for the environmental science class "Energy and Society" in April 2006.*

### **Introduction**

During his annual State of the Union address last January, President Bush famously declared that America is "addicted to oil" (United). Even an unbiased spectator of the American political scene immediately will notice that this profoundly disturbing observation does not cap a history of concern for the natural environment. Indeed, President Bush himself expressed concern over our addiction because oil "is often imported from unstable parts of the world" (United), not because of an ecologically conscious energy agenda. Regardless of the reason this pronouncement creates distress, the fact that it often does lends it weight which cannot be ignored. Intentionally or not, President Bush commented on one of the most critical problems facing the world's industrial nations today.

Our industrial-capitalist economy has created, in both individuals and society, an addiction to the consumption of energy which threatens not only the survival of the natural environment, but also the landscape of our human psyche. And if the industrial relationship to petroleum and other energy sources is indeed an addiction, then it will take more than "technology...reliable alternative energy sources and ...clean-energy research" (United) to facilitate our recovery. Before a diagnosis intended for individuals can be useful in explaining a collective psychological process, however, we must understand addiction on a personal level.

Merriam-Webster's New Collegiate Dictionary broadly defines addiction as "persistent compulsive use of a substance known by the user to be harmful" (13). Ecopsychologist Ralph Metzner, a pioneer in the application of "diagnostic analogy" (80) to psyche-nature interaction,

expands the definition: “behavior that continues in spite of the fact that the individual knows that it is destructive to family, work, and social relationships” (89). If we can put aside the intangibility of energy and the inaccuracy of labeling it as a “substance,” per se, then a “diagnostic analogy” may indeed elucidate the striking parallels between commercial energy consumption and clinical substance abuse. And if we accept the preponderance of evidence both that “addictive behavior is one of the most pervasive and intransigent mental health problems facing our society today” (Carson 295) and that humanity’s present resource consumption is ecologically unsustainable, then the possibility of a significant causal link will not surprise us.

### **Dependence**

To understand addictive consumption, let us examine several of its destructive characteristics: dependence, denial, dishonesty, a compulsive need for control, and disconnection from feelings (Roszak ed. 47). Dependence on energy, particularly in industrialized nations, is absolute and unequivocal. In 2004 alone, Americans used 99.74 *quadrillion* btu of energy, of which 85.65 quadrillion came from non-renewable fossil fuels. The previous year (the last for which data is available from the Energy Information Administration), the United States consumed 98.31 qbtu of the 420.98 qbtu consumed worldwide--nearly one quarter of total production by about four percent of the global population (Energy). Clearly, our “high-technology lifestyle” (Parfit 6) is utterly dependent on energy to survive. Our vast infrastructure--from the utilities which supply water to our homes to the electrical grid which powers our offices to the highways which carry us between the two--has been constructed to depend on comparably vast quantities of energy. Without a reliable source of energy, life as we know it in high-technology society would end. Dr. Joe Dispenza draws the pathological connection clearly

and unambiguously: “My definition of addiction is something really simple: it’s something that you can’t stop” (Arntz 174).

Dependence also is revealed by “a pattern of self-administration that usually results in tolerance, withdrawal, and compulsive [consumption]” (American 176). One need only imagine the frustrations caused by an electrical blackout or a car or appliance failure to see this pattern in action. Accustomed as we are to energy consumption, we “consume it compulsively” (its demand is relatively price-inelastic); and when it is unavailable, we suffer to a greater or lesser extent, like any addict who cannot find his fix.

### **Denial**

Psychotherapist Terry Kellogg describes addiction as “a process of decreasing choice sustained by denial” (Glendinning 98). The role of denial in both individual and collective addictions is multifaceted and multitiered. At the most obvious level, a denial of the environmental impact of energy production necessarily sustains such production. This phenomenon is especially devastating because it is perpetuated by the consumer, producer and government alike.

Any ethical consumer, if confronted personally with the choice to empty tons of mining slag into an Appalachian creek bed or relinquish the use of their refrigerator, would clearly choose the latter. But 24 hours of every day, actual consumers do exactly the opposite: they run their refrigerators and--if they know about them at all--accept the environmental costs of their decision as an unfortunate but inevitable externality of the lifestyle to which they have become addicted.

Even the environmentally ethical, “green” consumer who relies on wind and solar energy is not immune from addiction and denial, as I will demonstrate later. After all, even “the euphoria

of energy *freedom* is addictive” (Parfit 4). “At worst,” Alan Durning warns, “green consumerism is a palliative for the conscience of the consumer class, allowing us to continue business as usual while feeling like we are doing our part” (Durning 125).

The energy producer, too, colludes in the denial of ecological responsibility. A National Geographic article entitled “When Mountains Move” details one particularly telling instance of corporate denial:

In Logan County [West Virginia] in the winter of 1972, following two straight days of torrential rain, a coal-waste structure built by a subsidiary of the Pittston Coal Company collapsed and spilled 130 million gallons into Buffalo Creek. The flood scooped up tons of debris and scores of homes as it swept downstream. Survivors recalled seeing houses bob by, atilt in the swift current, the doomed families huddled at their windows. The final count was 125 dead, 1,000 injured, 4,000 made homeless. The Pittston Company called the disaster an “act of God” (Mitchell 114).

Pittston’s reaction reflects, in one fell swoop, the denial, dishonesty, and grandiosity of the addictive personality. The Martin County (KY) Coal Company blamed similar incidents on “excessive rainfall” (114)--another incident of placing the blame for an anthropogenic externality in Mother Nature’s unprotesting hands.

Psychologist Chellis Glendinning’s observation that “a hallmark of any addiction is the presence of denial” extends from the depths of our psyches to the highest echelons of political power. “The U.S. government denies a link between technological development and global warming,” she wrote during the first Clinton administration (Roszak ed. 47); clearly, that has not changed with the transition of power into Republican hands. President George W. Bush’s refusal to collaborate with 141 other nations on the Kyoto Protocol to stem global warming (Hinrichs 28) is but one prominent expression of deep-seated institutional denial. Conclusively, this three-fold (consumer, producer, government) repudiation of responsibility, far from representing

independent processes, exemplifies a mutually reinforcing pattern of denial which perpetuates itself in a psychologically and ecologically destructive downward spiral.

The denial does not end with ecological irresponsibility, however. We must not forget that our hunger for energy is due to our “high-technology lifestyle” (Parfit 6) and that our dependence on technology shapes our lives both for better and worse. The denial of the negative potential of technology itself shapes much of our energy policy. “One president after another calls for more technological development as the answer to environmental disaster,” Glendenning writes (Roszak ed. 47). “Many people,” she continues, “embrace the ‘technological fix’ as the answer to the social, psychological, and medical problems caused by previous technological fixes.” The use of the word “fix” is intentionally overdetermined: we are even more addicted to technology as a corrective than we are aware of it as a problem. Thus, ecologists and economists alike advocate “technology...reliable alternative energy sources and ...clean-energy research” (United), never stopping to consider that it is our addiction to technology itself which led us to our present circumstances. The idea that technology’s omnipresence, not inefficiency, is at the root of our energy crisis is too much for our society to bear, unquestioning as it is of technology’s beneficent and panacean nature. Such is the magnitude of our denial that this has not occurred to any but the most radical ecologists: we *simply are not entitled* to consume the amount of energy we do, regardless of how or how efficiently we produce it.

Does this mean that we should abandon the pursuit of less harmful means of energy production or simply give up and continue the indiscriminate use of fossil fuels? Of course not. But an alcoholic is not “cured” when he switches from liquor to lite beer or the smoker when he transitions to filtered cigarettes or a nicotine patch. We must acknowledge that while technologies like smokestack scrubbers, windmills and solar panels are steps on the path toward

healing and surely are more effective than industrial sabotage or “cold turkey” downshifting, they are not an end in themselves.

Finally and most importantly, the systemic denial at the very root of our addiction is much more insidious and certainly more elusive: the suppression of our *natural* dependence on (or rather, interconnectedness with) the natural world. It is important to mention this idea in the context of denial, though it will be discussed in greater depth later on.

### **Dishonesty**

Dishonesty and secretive behavior are also common symptoms of addiction. Though commonly identifiable among drug addicts, such behavior is rarer in energy consumers because of the ubiquity of the condition. (One has no reason to hide behavior from family or colleagues if they, too, participate in it.) Dishonesty becomes more apparent on the corporate end, however. “What the coal companies are doing to us and our mountains,” said one Appalachian activist, “is the best kept dirty little secret in America” (Mitchell 108). When denial on the consumer end fails to address the full scale of potential shame, dishonesty kicks in. Addiction defined, again: “behavior that continues in spite of the fact that the individual *knows* that it is destructive” (Metzner 89). If consumers’ knowledge of the destructive effects of their habit is kept to a minimum, their addiction is freed to gain momentum unhindered. Such was the case with alcohol and tobacco use until the past few decades (Roszak ed. 44). In a similar vein, petroleum companies advertise their efficiency, conservation and pollution control efforts without paying any more than the government mandated lip service to the damage their product causes. “We’re all for reducing emissions,” declares ExxonMobile, the world’s largest petroleum supplier, on their Web site (ExxonMobil).

### **Control**

The pathological need to control is another key facet of addiction. “Addicts need to control their world to maintain access to the source of their obsession,” Glendenning emphasizes (Roszak ed. 48). Like denial, the need to control can be observed in more than just consumer behavior. This commanding attitude helps to explain both individual energy use and corporate and governmental policy. Energy use (and technology, by extension) is, at base, a tool of control. A thermostat allows consumers to control the temperature of their living and working spaces. A light fixture allows us to control lumination. A car allows us to live and work where we choose and still attend to our needs and wants. Energy allows us to produce goods which make our lives easier, which improve our health, which make us feel good. But, asks theologian Thomas Berry, “what benefit is worth giving up the purity of the air we breathe, the water we drink, the life-giving soil in which our food is grown” (51)? Not all technology is bad, certainly. But the consumer’s desire to control with it has become pathological, and it will take more than technical efficiency or conservation to address this. A reevaluation of our energy “needs” will reveal that a disturbing number reflect our need to control natural cycles of heat and cold, day and night, and natural features like topography and climate. Such a fundamental divorce from natural cycles certainly must impact our psyches.

Energy and technology *producers*, too, must exercise control if they are to maintain our addiction--the source of their livelihood. Durning calls such upkeep the “cultivation of needs:” advertising which perpetuates or augments our desires for anything from alcohol or sugar to fame, security or wealth. (“Entire industries,” he notes, “have manufactured a need for themselves” (Durning 119).) Since energy is the fuel which makes other technology possible, the electricity industry, for example, is not alone in its battle to “cultivate needs.” Arguably, any

industry that relies on energy colludes in perpetuating our addiction to it day by day; the automotive, agribusiness and appliance industries are a few obvious examples.

Finally, legislation must allow consumers to “maintain access to the source of their obsession” (Roszak ed. 48). The nonpartisan Taxpayers for Common Sense reports that the federal government subsidizes the fossil fuel industries by over \$5 billion every year, while the Congressional Research Service has documented “\$66 billion in nuclear energy research and subsidies between 1948 and 1998” (Taxpayer.net). Government incentives for renewable technologies, including wind and solar, have been limited--even after President Bush’s plea last January--and they remain uncompetitive with fossil fuels (Parfit 13).

Reasonable economic and technological arguments have been made for these policies. Viewing subsidies through another lens, however, may be more enlightening: dependence on renewable technologies is inherently intolerable for an addicted society. The anecdote that begins Michael Parfit’s National Geographic story about alternative energy reflects, at the household level, the inability of solar power to satisfy the addict’s need for control:

I have just installed a dozen solar panels on my roof, and they work. A meter shows that 1,285 watts of power are blasting straight from the sun into my system, charging my batteries, cooling my refrigerator, humming through my computer, liberating my life....With my new panels, nothing stands between me and limitless energy--no foreign nation, no power company, no carbon-emmission guilt. I’m free! Well, almost. Here comes a cloud. Shade steals across my panels and over my heart....I’m going to have to start the generator and burn some more gasoline (4).

Thus the government continues to support, and we continue to consume, gasoline instead of biofuels, coal instead of wind or solar power. Limited though we know fossil fuels are, they provide in the short term control and certainty that alternatives, by their nature, cannot. “The big problem,” Parfit points out, “is big numbers.” Alternative energy *has* proved cost competitive in



small communities, especially in developing nations (7). But small-scale, low technology energy use in a communal setting, as I will demonstrate later, is not addictive.

Many economists decry government subsidies because they tamper with market forces and conceal “external costs [environmental problems]...of fossil fuels” (Porter 62). Far more hazardously, however, fossil fuel subsidies are an institutional endorsement of mental illness. By economically supporting our addiction to cheap energy, the government perpetuates a psychically and environmentally destructive pattern of resource use. One professor observed, only half in jest, that “a government incentive is something that allows you to keep doing something that’s insane” (Meares).

### **Dissociation**

One final symptom of addiction is the disconnection from genuine feelings. “Alcoholics,” Glendinning says, “are brimming with emotions, but they can’t express themselves directly or constructively.” Thus they deny themselves those feelings and live in a “state of frozen emotion” (Roszak ed. 50). Constant societal pressure to consume drives energy addicts, likewise, to divorce very real feelings of what deep ecologist Joanna Macy calls “environmental despair” (240) from their everyday experience. She believes that people, as members of an interconnected web of life, cannot escape the trauma done to our fellow humans, the planet and other species, or even future generations. But to sustain our way of life, we must ignore these traumas and repress the very real pain of consumption--which is driven by energy use. “As a society,” she writes, “we are caught between a sense of impending apocalypse and a fear of acknowledging it” (242). This fear would not be so acute--or necessary--if a powerful addiction were not present.

### **Capitalism and Commodification**

I have endeavored to show that our energy use patterns mirror those of substance abuse addicts in both behavior and emotional and physical consequences. But poised though man is on the brink of fulfilling Albert Schweitzer's prophecy, "he will end by destroying the earth" (Carson v), we must not rush to rash action on the issue of energy use. Dr. Candace Pert, an expert on addictions, notes: "In all addictions, [people] get stuck in old patterns. They are just thinking the same thoughts over and over, and they are not able to think of something new" (Arntz 171). Immediate action--reliance solely on technology fixes, legislation and energy efficiency--is ultimately fruitless if it takes place in the addicted state of mind, "stuck in old patterns." It is therefore imperative, for the sake of both the psychical and environmental landscape, that we pursue collective and personal mental health at its very roots. There is not room in this discussion to adequately address the depth and complexity of the psychopathology of human-nature interaction, but an examination of our capitalist economic system may prove a valuable first step.

"The development of capitalism," writes deep ecologist and wilderness educator Dolores LaChapelle, "consists in making a group of people addicted to some 'substance' and selling it to them" (48). She cites as evidence the age of exploration roughly beginning with Columbus and describes the development of addictions to gold, silver, sugar, tobacco and opium, among others (40). This "substance approach to reality" (49) made modern capitalism possible. By compartmentalizing the natural, material world, Europeans turned the earth into a pile of "natural resources," commodities which existed for human exploitation, consumption, and now, addiction. One of LaChapelle's historical observations still can be observed today:

Europeans turned the Indian's sacred tobacco into just another substance--unrelated to anything else. And then produced it on plantations and sold it to a world, gradually growing more addicted to it--until now it's one of the leading causes of death. Formerly tobacco was life-enhancing, because smoking the ceremonial pipe strengthened the relationships among

all the humans present as well as put humans into relationship with “powers” of the sky and of the earth (49).

A disturbingly similar phenomenon has occurred with modern energy use. In many long-lived hunter-gatherer cultures, communal fires are the source of energy: they were used to prepare food and warm and protect families or entire tribes. Moreover, they were objects of veneration and centers of ritual (Fiero 3); the energy of the fire was one expression of the energy of the universe. Thomas Berry observes that “awareness of an all-pervading mysterious energy articulated in the infinite variety of natural phenomenon seems to be the primordial experience of human consciousness, awakening to an awesome universe filled with mysterious power” (24).

But capitalism commodified that energy, bundled it and sold it by the gallon and the kilowatt-hour, and thus denied energy its “life-enhancing” powers. In a supreme irony, capitalists stripped energy of its most vital value when they placed a price on it. Most of us could hardly say we utilize an “all-prevading mysterious energy” when we switch on the blender or “[awaken] to an awesome universe filled with mysterious power” when we make our morning commute. There can exist no “all-pervading” commodity, no strictly utilitarian essence. When we view the energy that we purchase at the gas station or through our electric bill as a *substance*--a tool of technological utility--not an essence, as Berry describes, we become addicted.

The propensity to quantify, compartmentalize, and trivialize formerly powerful and mysterious experiences like energy use signals perhaps the most devastating form of denial, referenced earlier: the denial of our interdependence with the earth itself. Much of our species suffers from what eco-psychologist Theodore Roszak calls a “collusive madness” (53); like all addicts, we are mentally ill. And, as Glendinning recognizes, when “the internal climate [of the psyche] does not allow for satisfaction, [the addict] turns to secondary sources” (98). Since we cannot, in our traumatized dissociation from our environment, experience the true satisfaction of

sustainability and interconnectedness (through ritual and everyday life), we “become obsessed with secondary sources as if our lives depended on them” (Roszak ed. 53).

Psychologist A. Goldstein attributes the potency of addictive drugs like opium, heroine and morphine to “one of nature’s most bizarre coincidences--their uncanny resemblance to the endorphins” (LaChapelle 49). Endorphins, naturally occurring brain chemicals which cause experiences of pleasure or joy, lose their effectiveness when displaced by exogenous chemicals like those in marijuana. Eventually, the brain is chemically unable to produce them by itself, and addictive depression results (Arntz 170). Perhaps a similar process takes place during the formation of a technology addiction: we become so dependent on the false satisfaction of technology use that we lose our ability to feel the genuine vitality that comes from being connected to the earth.

“The hallmark of [the substance abuse] process,” Glendinning writes, “is the out-of-control, often aimless compulsion to fill a lost sense of meaning and connectedness with substances like alcohol or experiences like fame” (Roszak ed. 46). Early modern Europe filled this void with gold, silver, sugar, tobacco, cotton. In modern industrial society, we have created technology running the gamut from cars to cappuccino machines. And we have become addicted to it.

### **Solutions**

As dire as this “diagnosis” seems to be, hope remains for our collective recovery as much as it does for any substance addict. The success of the A.A. program in helping cure addictions through both individual initiative and supportive communities provides hope that recovery is possible on a global level. “Addictions are broken by changing, evolving,” say the makers of the pioneering intellectual project What the Bleep Do We Know? (Arntz 178). It will take nothing less than a slow and painful but ultimately restorative psychic and cultural evolution to overcome

our addiction to energy and technology. But awareness and recovery must be facilitated on all levels--individual, community, corporate, and governmental--if we are to succeed.

The first phase of the 12-step addiction recovery program is “admitting that we are powerless over our addiction--that our lives have become unmanageable” (12step.org). Likewise, Glendinning concludes: “we must recognize systemic addiction in mass technological society if we are ever to achieve a state of psychological and technological well-being” (Roszak ed. 51). Humanity must accept the challenge of restoring collective mental health if our destructive relationship to our environment is to change. The future of life on Earth hangs in the balance.

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*Joseph Wilkerson is a sophomore studying Environmental Management and Policy at the University of North Carolina in Asheville. His independent research focuses on the role of spirituality in transforming the philosophical and cultural underpinnings of both industrialism and the environmental movement. He hopes to pursue graduate work in Depth Psychology and*

*integrate its teachings further with ecopsychology. Joseph can be contacted at [jrwilker@bulldog.unca.edu](mailto:jrwilker@bulldog.unca.edu).*