Healing Addiction Through Community: A Much Longer Road Than it Seems?

Bruce K. Alexander

Revised Version of Keynote Address at the "Creating Caring Communities" Conference Selkirk College, May 14, 2015

The winds of change are blowing in the field of addiction. I sense the change in the discourse of the most stimulating scholars and the discussions of the audiences when I give public presentations. Both the moralistic view of addiction as wilful evil and the disease/medical model of addiction have lost much of the impregnable power they once had (Pickard, 2012; Ahmed, Lenoir, & Guillem, 2013; Levy, 2013; Satel & Lilienfeld, 2013; Hall, Carter, & Forlini, 2014). A new understanding is gradually emerging in their place: Addiction is a way that needy people respond to what is missing or traumatic in their own lives and communities (Maté, 2008; Hart, 2013; Peele & Thompson, 2014, esp. pp. 197-200; Lewis, 2015). Along with this understanding comes a much greater emphasis on attempting to establish addicted people in a welcoming community, thereby reducing their need for addictive compensations. This expanding trend is associated with googleable phrases like "building community", "restoring community", "recovery houses", and "support groups".

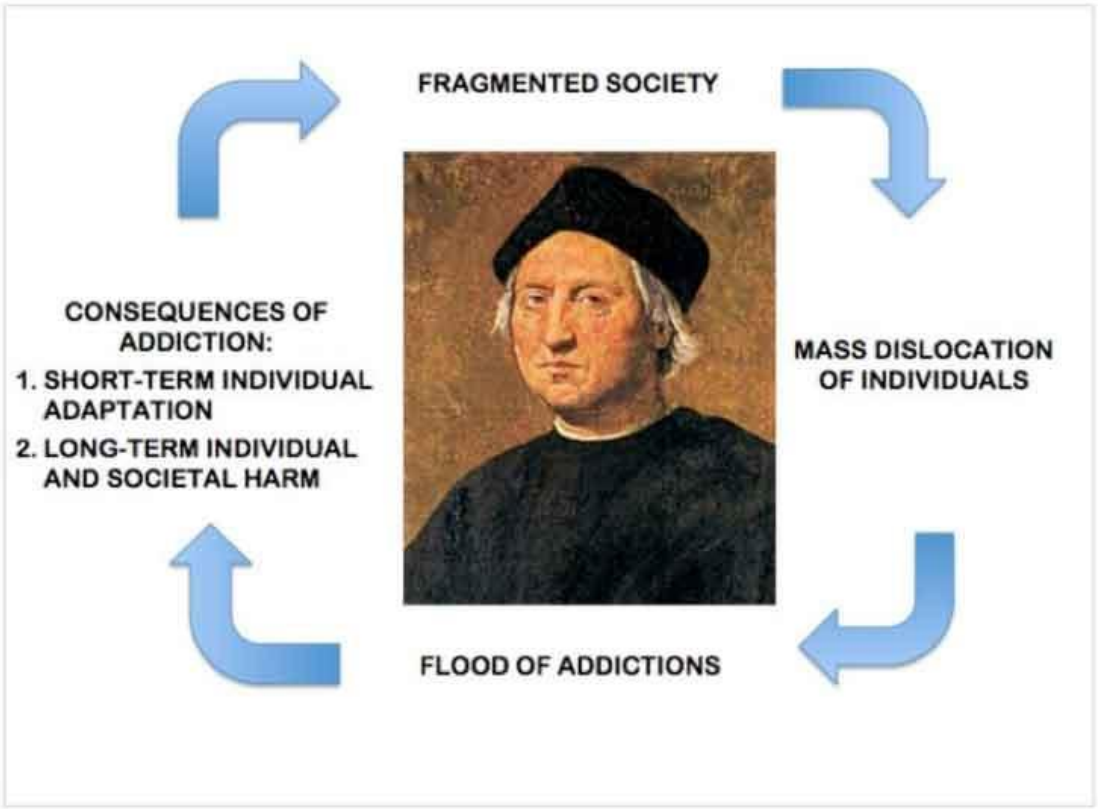
After a long career of opposing the moralistic and disease views of addiction, beginning with the "Rat Park" experiments of the 1970s (Alexander, Peele, Hadaway, Brodsky, and Beyerstein, 1985; Alexander, 1990, 2008/2010), I consider this trend a cause for celebration. However, I have a nagging fear that "restoring community" as currently discussed and practiced by many influential thinkers and organizations, may not be much more successful in the end than the interventions that grew from the War on Drugs and the disease model.

My fear is that the current thinking that underlies the community-oriented understanding is still too narrowly focussed on the travails of individual addicted people, rather than also taking into account the broad, historical causes of a society that carries a huge burden of severe addictions to habits of all sorts. Tonight, I will summarize a global, historical account of the causes and consequences of addiction (Alexander, 2008/2010, chap. 3; Alexander, 2014). My account, like the accounts that I have referred to above, concludes that addicted people can best be helped by restoring their place in a functioning community. However, it also shows why restoring people's place in community is much more difficult than it seems and why bringing addiction under control requires much more than therapy.

This talk ends with a radical long-term view of what it will take for community life to bring addiction under control. This view would have been almost unthinkable when I began my career in the psychology of addiction a half-century ago, but can be better appreciated in the today's state of global chaos.

A Global, Historical View of Addiction

In Figure 1, I have drawn a global, historical view of addiction as a feedback loop or "vicious cycle". In the center of the cycle is an old portrait of Christopher Columbus looking worried. I hope that it will be clear very soon why he appears as the central image, and why he was right to be worried.



Please keep two caveats in mind: First, the global, historical view of addiction *does not* focus on single individuals. Rather, it focuses on the societal causes of the rising tide of addiction in a 500-year period that historians know as "the modern era." Of course each addicted person's story in unique, but the global view is needed both to explain the rising tide of addictions that threatens to engulf us, and to enrich our understanding of the individual life stories of addicted and recovering people.

Second, the historical view of addiction *is not* an attempt to explain drug use, or

"substance abuse". People use psychoactive drugs for all kinds of reasons, many of which have nothing to do with addiction. The historical perspective is about *addiction* in the sense of a powerful dedication or devotion to a particular habit or pursuit that may interfere with the life that a person wants to live and that their society expects them to live (see *Oxford English Dictionary*, definition 1a). Addictions to drugs and alcohol are important of course, and they dominate the mass media, but they by no means comprise all or even most of the addiction problem. Rather than concentrating on drug and alcohol addictions, The historical perspective focuses on the full range of potentially destructive addictions, including sex, wealth, power, gambling, love, eating, shopping, hoarding, dieting, internet games, social media, narcissistic self promotion, alcohol, drugs, pets, and so on and on and on.

Fragmentation

The historical view of addiction starts with the fact that societies everywhere have become severely fragmented in the last five centuries (See Fig. 1, top quadrant). From the time of Christopher Columbus onward, large scale colonization by western powers has crushed defenseless societies around the globe by conquest, disease, enslavement, economic exploitation, religious domination, and devastation of local ecosystems (Wright, 2004; Mann, 2011). Canadians know the history of colonization very well because it is our own history, both as the colonizers and the colonized. But is also the history of the entire western hemisphere, as well as Africa, Asia, the Middle East, and much of Europe.

At about the same time that the colonizing European powers conquered the outer world, they also crushed defenseless subcultures *within their own countries*, although with somewhat more restraint. The agricultural and industrial revolutions overran and crushed stable peasant villages and commons throughout Europe (Polanyi, 1944; Bollier, 2014). More recently, dazzling new technologies, corporate strategies, predatory lending practices, and neo-liberal government policies are re-invading and re-fragmenting local urban and rural societies, social safety nets, universities, and Internet-based groups that were emerging from the ruins of traditional cultures (Rowbotham, 1998; Reding, 2009; Klein, 2014a; Bollier, 2014, chaps. 1-5)

.

Thousands of different aspects of the global fragmentation story have come to light. Beneath the repeated passes of the steamroller of modernity, nuclear families have been crushed, extended families have been scattered, religions have been twisted into shallow caricatures, and cultures and ethnic traditions have been pulverized.

The social fragmentation of society that began in the early modern era continues to escalate in the modern world of the 21st century, amidst the globalization of free-market capitalism, neoliberalism, corporate culture, high-tech surveillance, ecological devastation, "development", "restructuring", and "austerity" imposed on poor countries, mercilessly increasing efficiency in manufacturing and agribusiness, and unending financial crises (Chossudovsky, 2003; Dufour, 2003; Harvey, 2011, pp. 66, 176; Snowden,

2014; McWilliams, 2015.) Some excellent recent authors associate these kinds of fragmentation with "postmodernity" more than "modernity" (e.g., Berardi, 2009), but the analysis remains essentially the same.

In today's Canada, we struggle to protect society from further social and environmental fragmentation that will be produced by oil and gas pipelines, fracking, destruction of the terrains near the tar sands, hard-rock mining, overfishing, real estate bubbles, uncontrolled banks and financial markets, pollution of the fresh water supply, privatization of our excellent medical and educational systems, increasing "linespeed" in meat processing plants, and the Internetification of private life (Nikiforuk, 2015; Levitin, 2015). These are not separate problems, but diverse manifestations of the steamroller of fragmentation.

Fragmentation seems inescapable because it is a side effect of an economic, political, and technological evolution that has bestowed enormous increases in industrial productivity and technical advancement on the human species, and has made it possible for the earth to support a world civilization of seven billion people. However, this bourgeoning world civilization is in deep, and possibly terminal trouble, in large part because of the consequences of this fragmentation, including dislocation and addiction.

Dislocation

Following Karl Polanyi (1944), I use the word "dislocation" to describe the *individual, psychological* devastation that is rooted in unrelenting societal fragmentation. "Alienation" and "disconnection" are equally good terms for "dislocation."

Dislocation refers to the experience of a void that can be described on many levels. On a social level it is the absence of enduring and sustaining connections between individuals and their families and/or local societies, nations, traditions, and natural environments. In existential terms, it is the absence of vital feelings of belonging, identity, meaning, and purpose. In spiritual terms it can be called poverty of the spirit, lack of spiritual strength, homelessness of the soul, or feeling forgotten by God.

Mass dislocation has *real benefits* for economic growth and geopolitical power. The free market system that underlies the modern global economy *needs* dislocation. For the modern economy to function well, individuals must perform competitively and efficiently, unimpeded by sentimental ties to families, friends, traditional values, needs for a sense of meaning, love of the earth, or religious commandments. In classical economics, it is this severe economic rationality that is said to make the law of supply and demand function, and thus to "clear the markets" each day. Nations that have adopted the free market system in recent years, such as China and Russia, have become geopolitical superpowers.

Dislocation has genuine hedonistic advantages for modern individuals as well for economies. It provides opportunities for personal initiative, individual creativity, and self-actualization. Everyone probably enjoys indulging in unrestricted individualism from time to time (Ryan, 2013).

However, prolonged, severe dislocation has a high price, because it eventually undermines the normal societal bases of belonging, identity, meaning, and purpose,

leaving people with an empty and dismal experience of the world [Polanyi, 1944; Frankl, 1963; Berry, 2009, pp. 35-48; Tolman, 2013; Klein, 2014a, pp. 158-160; Verhaeghe, 2014].

Decrying fragmentation and dislocation is not just the nostalgic lament of existential philosopher, social workers, historians, theologians, romantic poets, and gurus. The concrete damage caused by dislocation and the specific linkages between societal fragmentation and individual dislocation have been described – and sometimes quantitatively measured – at every stage of the human life cycle, beginning before birth.

For example, intrauterine consequences of stress endured by pregnant women in a fragmented society can make render their children socially fearful year later and, hence, dislocated. Some of the brain mechanisms underlying this causal relationship have been worked out (Maté, 2008, 2015).

Lack of stable attachment in infancy or traumatic abuse, due to fragmentation of families (or any other reason) can make a child insecure and unlikely to achieve satisfactory integration in society later in life (Bowlby, 1969).

Lack of stable housing in volatile real estate markets dominated by speculators can make settled family and neighbourhood life difficult or impossible for adults, even those experienced little stress early in life. I witness this first hand amongst young relatives and friends in the insanely-inflated real estate market in Vancouver (Surowiecki, 2104).

Work in a dehumanizing factory system like Foxconn, where my cell phone – and perhaps yours – was made, can leave people so empty of meaning that suicide becomes a widespread alternative (Tharoor, 2014).

Existence in a hypocritical, corrupt political system run by politicians who shamelessly serve financial and industrial megacorporation and military bureaucracies leads to profound apathy in adults (Brand, 2013; Risen, 2014).

Lack of family and neighbourhood support can leave elderly people in a state of incapacitating despair (McLaren, 2014).

Severe, prolonged dislocation is unbearable; most of us cannot just "tough it out." It precipitates anguish, suicide, depression, disorientation, and domestic violence (Durkheim, 1897/1951; Polanyi, 1944; Chandler, Lalonde, Sokol, & Hallet, 2003; Deraniyagala, (2013), Berardi, 2009; White, 2014; Alexander, in preparation).

Because it is unbearable, dislocation has been imposed as an extreme punishment (in the form of solitary confinement, exile, ostracism, banishment, and excommunication) from ancient times to the present. Because it is unbearable, radical social isolation remains an essential component of today's terrifyingly scientific technology of torture (Klein, 2007, chap. 1; Democracy Now, 2014).

It is hard to describe dislocation precisely because it needs to be discussed on several levels at once. It is even harder to describe what it is like not to be dislocated. It would be wrong to say that the opposite of dislocation is "normal" because in a fragmented society like our own, dislocation is closer to the norm. I prefer to use the term "psychosocial integration" for the opposite of dislocation. This term originally comes from Erik Erikson. My best attempt it summarize psychosocial integration quickly is to say that it is the mentality of people whose place in a well functioning society enables them to that they belong, yet still feel free.

Avoiding Oversimplification. "Dislocation" and "psychosocial integration" are multilayered concepts that lose their meaning if they are over-simplified or rigidly operationalized. For example, extreme income inequality is an obscene fact of today's world and can exacerbate many aspects of dislocation. However, dislocation is *much more than* either poverty or income inequality. Many wealthy people feel the full anguish of dislocation. (Slater, 1980; Alexander, 2008/2010, chaps. 9,10). No matter how rich you are, you cannot buy your way out of dislocation although you may be able to create the appearance that you have (Alexander, 2008/2010, pp. 131-136; Sheff, 2008; Sheff, 2009; Klein, 2014a, pp. 161-170).

Dislocation is also more than just loneliness. It is possible to have a busy, or even frantic, social life in a fragmented society and still feel the full force of dislocation if a person is bereft of truly functional social connections, a meaningful sense of place in the natural world, or a home I the world of the spirit (e.g., Lewis, 2015, chap. 5). Unlike rats, the cages that make people vulnerable to addiction are often invisible.

Concern about dislocation is *more than just* romantic nostalgia for the real or imagined "good old days." The modern era is no more evil than previous eras but, like earlier eras, it brings its particular problems to be solved. Widespread dislocation is one of them. Of course, individuals can also be severely dislocated by events that have nothing to do with modernity, including earthquakes and tsunamis and individual genetic and epigenetic misfortunes. These occurred in pre-modern as well as modern times. Nonetheless, modernity itself is the dominant source of dislocation in our era, and many modern thinkers believe that dislocation is now inescapable and almost universal (Dufour, 2003; Berardi, 2009; Albrecht, 2012; Welch, 2015).

Dislocation is experienced as the absence of belonging, identity, meaning, and purpose. But how much of each is required to achieve psychosocial integration? For example, can a lot of identity make up for an absence of meaning? It is impossible to say. Dislocation is a human state that is widely recognized but only loosely defined. There is no precise formula for defining or measuring it. This makes its existence easy to deny in an age dominated by rigid scientific epistemology. Unfortunately rigid scientific epistemology cannot make dislocation disappear, although it can make it invisible to people who push scientific logic beyond the limits of its utility.

Addiction: A Common Way of Adapting to Dislocation

Just as high levels of dislocation follow high levels of social fragmentation, a flood of addiction inevitably tracks high levels of dislocation (see Fig. 1, bottom quadrant). A wealth of historical and anthropological evidence shows the predictability of this sequence. Clinical and biographical evidence shows *why* addiction tracks dislocation so closely: Addiction can provide dislocated people with some much needed relief and compensation for their bleak existence, when nothing else seems to be working. (Alexander, 2008/2010, chaps. 6-8; Watson, 2015).

Addiction can become an intense and even overwhelming involvement that *can provide a partial substitute for people who are severely dislocated. Addiction can fill the excruciating void of dislocation, to a degree and for a time.* Because addictions provide only a partial solution, severely addicted people must work them for all they are worth – insatiably – even if they feel terribly guilty about the people they are hurting in the process, or the other parts of their life that they are letting fall to ruin.

To say that addiction serves a vital adaptive function is not to say that it is harmless, or to make light of it. Rather, it is to point out that it serves a vital function for people who cannot find a better way to respond to desperate and dangerous levels of dislocation under the circumstances of their lives. That is why it is so common in a fragmented global society.

Of course addiction is not the kind of adaptation that people generally want for themselves, or that their societies want for them, but it at least provides them with some meagre sense of belonging, identity, meaning, and purpose (even when it is accompanied by guilt and remorse). Without their addictions, many people would have terrifyingly little reason to live and might fall into incapacitating depression or suicide.

For example, when "junkies" wake up, they at least know who they are and what they must accomplish that day. Rather than being overwhelmed by the emptiness of their existence, they keep very, very busy chasing drugs, sometimes in collaboration with their fellow users, sometimes in competition with them. At the same time, they can hold onto a tragic but exotic junkie identity, and identify themselves with William S. Burroughs, Curt Cobain, Phillip Seymour Hoffman, Russell Brand, or Robin Williams. A kind of junkie mystique dilutes the misery of their existence with the glamorous imagery of the "tragically hip" or "the coolest" (Burroughs, 1967; Pryor, 2003).

For another example, people who are addicted to horserace gambling have not found anything more important in their lives than incessantly exchanging information and hunches within a colourful subculture of characters at the track, with a mythology of famous gamblers and legendary horses of the past and an imagined future of fabulous success (Ryan, 2014a, b).

Much larger numbers of people use drugs only moderately or go to the track recreationally. They have found more effective ways of fulfilling their needs most of the time. The tragic reality, however, is that there are countless millions of people who cannot use drugs or gamble recreationally. Their needs for belonging, identity, meaning, and purpose are too great and they seize onto these recreations as saviours, and try to build a life around them. Because addiction is essential to dislocated people's ability to function in the world, people cling to their addictions with the iron grip that they would apply to a piece of floating junk in a stormy sea.

The adaptive function of addiction is often hidden. Many addicted people deny that they live in a state of dislocation, because they feel ashamed of their inability to find a secure social life, a sense of who they are, some values they can believe in, a place they can call their own, or a reason to get up in the morning, even though they live in a fragmented society that makes filling these needs problematic for everybody. They may deny their dislocation because it feels like an unbearable personal failure and they may be only dimly aware of the adaptive function of their addiction. In moments of insight however, even these people can explain the function of their addiction with surprising candour (Alexander, 2008/2010, pp. 158-160).

Long ago, when I worked as a family therapist, I saw parents of addicted people cling with an iron grip to the Official View that their children's addictions were caused by addictive drugs, or by irresistible peer pressure, or by genetic predispositions, or by incurable brain dysfunctions. Acknowledging the adaptive functions that addictions served for their son or daughter would require acknowledging how much was missing in the family and neighbourhood environment they had been able to provide. I think that all of us who are parents can recognize how excruciating painful that acknowledgement could be. It would seem to be an admission of abject failure as a parent, although it is perfectly clear that many of these parents did everything within their power for their children.

Finally, the Official View of Addiction lavishly funded and sponsored by our governments, especially through NIDA (Alexander, 2014) and other governmental and professional agencies authoritatively proclaims addiction a chronic disease caused by drug use -- rather than an adaptation -- with all the force of scientific authority and media dramatization. Is it possible that this dogma spares the officials who promulgate it from another kind of anguish about the kind of society that they perpetuate in loco parentis?

Consequences of Addiction: The Cycle Continues

Beyond the fact that addictions are only partially successful in reducing individual dislocation, there is another, more social reason why addiction is so hard to overcome in modern society. *Many of the harmful consequences of addiction exacerbate the fragmentation of modern society and, thus increase the dislocation that flows from it.* Ultimately, these increase the prevalence of addiction. The vicious cycle keeps turning.

Think of the fragmentation produced by wealth and power addicts in the executive suites of multinational corporations. Then think of the environmental harm caused by the compulsive consumption of their products by millions of their customers. Think of the fragmentation produced by all the talented children who cannot be educated and socialized as productive adults because their school years have been lost to the world of video games and social media. Think of all the adults who are lost from reflective work and citizenship because they are lost in active addictions to money, power, drugs, sex, wealth, celebrity worship, spectator sports, fashion, pets, social networking, Internet gaming and so forth. Think of all the addicted people lost in an endless cycle of tenuous recovery, relapse, and re-recovery. Think of all the elders who will not pass their accumulated wisdom to their descendants because they are lost in their addictive involvements in television, crossword puzzles, or prescription drugs.

Moreover, when people's addictions last too long or become too overwhelming, their adaptive functions go awry. Health consequences of severe addictions further burden and fragment the addicted persons' families, communities, and societies. In all these ways, addiction perpetuates social fragmentation, and the cycle roles on through the generations.

Addiction is not only a downstream response to societal fragmentation but also ultimately an upstream cause of it. With each new turn of the cycle the flood of addiction rises to new heights and the costs to society increase.

Treatment of Dislocation and Addiction

The global, historical view gives us a fresh basis for looking at the innumerable current forms of treatment and prevention of addiction. It enables us to understand why our current methods aren't more effective and what we can do better. It allows us to imagine a world where we would no longer have to live with high levels of addiction to all kinds of habits, and where so many parents would not endure so many sleepless nights worrying about their children's possible addictions.

Here one way of classifying the approaches that have been prevalent in the western world since the 19th century. They are organized according to the degree to which they can address the problem of societal fragmentation and individual dislocation by restoring community, starting with the least relevant.

1. Punish drug users, producers, and traffickers; anti drug propaganda: The "War on Drugs"

2. Treat the addicted individuals in a medical or psychotherapeutic context: The Medical Approach

3. Eliminate both punishment and treatment, allowing addicted people to respond to the natural consequences of their lifestyles: The libertarian approach

4. Introduce various esoteric practices to enable people to bear dislocation in a fragmented world: e.g., Meditation, Yoga, Mindfulness,

5. Reduce harm by caring for addicted people whether or not they attempt to give up their addictions: Harm Reduction and Harm Reduction Treatment

6. Provide community-oriented support, acceptance, spirituality, and treatment to overcome addictions: The Recovery Movement (Small Scale Social Change)

7. Restructure modern society to reduce fragmentation, dislocation, and addiction: Large Scale Social Change

In the course of a long professional lifetime I learned to appreciate advocates of each of these approaches. Each can justly claim some successes: Even advocates of the War on Drugs can point to some addicted people who have found better lives under threat of punishment.

Few workers can be completely pigeonholed in a single one of these boxes. Most allow for the importance of more than one or them, although most do put their primary faith in a single approach. Nonetheless, still today, many practitioners of each of the seven approaches express strong disapproval for the practitioners of the other six, ranging from amusement to dark contempt. This persistent antagonism may stem from the profound ideological and metaphysical schisms between the proponents of different points of view, for example between atheists and theists. It is probably exacerbated by the fact that the addiction treatment industry in the US alone has been estimated to have a $35 billion market, and to be "poised for accelerated growth" (Munro, 2015)

The mutual disparagement is counterproductive: All seven approaches deserve acknowledgement for their compassionate intentions and for the people that they have helped over the years. However, it must be said that until now, all of them together have not accomplished much. All indications are that the flood of addictions to habits of all sorts is rising, not receding.

I believe that, once addiction is understood historically, it becomes clear that the best hope at this moment in history lies in much greater emphasis on the seventh approach, Large Scale Social Change.

I will discuss each approach briefly in my remaining minutes:

1. The War on Drugs

The War on Drugs was by far the most visible approach in the late 19th century and the first two-thirds of the twentieth century, although all seven approaches were understood and practiced throughout this period (White, 1998; Alexander, 2009). The drug war is originally based on the assumption that drug addiction and drug distribution are wilful acts of evil.

The outcome of a century of drug war has been ghastly. The horrors of the drug war are best documented in the US (Hari, 2015), but horrors also occurred in Canada (Alexander, 1990, pp. 24-51) and other countries. Faith in drug wars has still not entirely disappeared. It is startlingly evident, for example, in the rhetoric and actions of the current Harper government of Canada (Macpherson, 2014; Webster, 2014; Woo, 2015).

MY VIEW: The war on drugs is an idea whose time has come – and gone. It has now lost its credibility among well-informed people virtually everywhere (e.g., Neuman & Romero, 2015. We will be better off when we are completely rid of it.

However, just as the War on Drugs proved not to be a panacea for ending the problem of addiction, it is important to remember than ending it will not solve the addiction problem either. Even the most enlightened policies of regulation and taxation of drugs will not remove the fragmentation and dislocation that makes even legal drugs addictive to many people. And ending the drug war cannot contribute much to the solution of all the other addiction problems that are engulfing modern society. Today's societal fragmentation has a much wider basis.

2. The Medical Approach

Medical and quasi-medical treatments include detoxification, cognitive behavioural therapy, motivational enhancement therapy, monitoring and reinforcement, some forms of personal and pastoral counselling, and prescription of naltrexone, nalmefene, disulifram, acamprosate, vaccines against various drugs, megavitamins, ghrelin hormone, deep brain stimulation, and many more. Recently treatment with methadone and suboxone are being classified as medical treatment as well.

(Other kinds of therapy are much more focussed on the underlying problems of dislocation and social fragmentation. These forms of treatment will be considered later, as part of the Recovery Movement and Harm Reduction Approaches.)

MY VIEW: Medical and psychological treatments that focus on addictive thinking, behaviour, and brain states of individuals with little or no concern for the underlying

problems of fragmentation and dislocation have failed to do much good. Relapse followed by further treatment is the most likely outcome.

This kind of narrowly conceived treatment has a long history. Many of the treatments that have been used are perfectly sensible – within the limitations of their individualized scope – but some of them seem to me more like miracle cures. Various miracle cures of addiction have become popular for considerable periods over the last century (White, 1998), and new ones are proposed or actually put in to practice all the time (e.g., Friedman, 2015; Scripps Research Institute News Release, 2015). However, upon closer examination, these have all turned out to have little sustained effect for most addicted people (White, 1998) and to be based on gross oversimplifications of scientific research (Horgan, 2015). Nonetheless, hopes for miracle cures continue to materialize in the era of high-tech neuroscience, when so many other, genuine medical miracles have been produced.

Of course medical treatment has helped some people, particularly those who use it to augment their own natural recovery that is already in progress. It offers the gift of social legitimacy and compassion whether it has any substantial efficacy or not.

Addiction treatment is an expression of the natural, compassionate human impulse to attempt to heal those who suffer. But, because there is no reason to think that any kind of narrowly conceived, medical treatment can quell the ever-rising flood of addiction, I predict that it will never be more than a minor part of the solution to the problem of addiction.

3. The Libertarian Approach

In the libertarian tradition, addiction can be seen as nothing more than a moralistic social construction. Indeed, it is often true that people who society labels "addicted" are basically living the way that they want to live without harming others or themselves. If these people find that their "addiction" does not work for them, they will drop it. Focussing attention on these inappropriately-labelled people evokes the possibility of complete legalization of drugs use and conscientiously leaving people to work out their own addiction problems. It finds expression in the libertarian philosophy of Thomas Szasz, John Davies, Jeffrey Schaler, Peter Cohen and others, some of whom argue it with great eloquence.

MY VIEW: The importance of this view is that it provides a reasonable argument for ignoring many instances of addiction and simple dependence (Alexander, 2008/2010, pp. 45-46) that do minimal harm. It also provides a basis for accepting the usually benign marijuana culture of many young adults in Canada and other countries and much of the blatant public drug consumption that goes on at rock concerts.

However, I think it deeply unwise to ignore severe, prolonged addiction, which often entails terrible suffering and social harm. My experience is that when someone believes

that they need help because are harming themselves and their family with their addiction, they are usually right. Although many severely addicted people do recover naturally, there are literally millions who do not. And even if our feeble interventions do not work for most people, they do work for some and should be available.

4. Esoteric Practices: e.g., Meditation, Yoga, Mindfulness

The dominant theme of meditation, yoga, and mindfulness is helping people keep their attention on the immediate experiential reality of the current moment, and away from ugly memories from their past, narratives that obscure present experience, and fears of the future. Often it entails focussing specifically on the present experience of craving and relapse. The dominant methods are derived from Eastern Spiritual Practices and New Age Religions (Chödrön, 2000, esp. chap. 7; Eckhardt Tolle, 2005; Williams, Teasdale, Segal, and Kabat-Zinn, 2007; Peltz, 2013, esp. pp. 18-23 and chap. 3).

MY VIEW: Ameliorating the pain of dislocation can be very helpful. I believe that focussing on the present moment can protect some dislocated people from obsession, depression, addiction, or suicide and facilitate better choices. I know that my own occasional forays into these esoteric practices have been good for my marriage (my wife agrees!) and that practicing mindfulness when I drive my car helps me to be less of a menace on the road in my old age.

But these esoteric practices are far from an adequate solution to the problem of addiction. The global, historical view suggests that it will be impossible for society to bring addiction under control without addressing the dislocation and social fragmentation that underlie it. Our harmful perceptions and feelings are not entirely self-generated, but are mostly normal reactions to the world we inhabit. Even if we can handle our reactions to the severely fragmented world we occupy in the most enlightened possible way, we may still experience severe anguish from our profound dislocation.

A solution to the addiction problem, both on an individual and a social level, takes more than peripheralizing the experience of dislocation and analysing the experience of relapse with a clear mind. It also requires reducing the societal fragmentation that makes it so difficult to put together a life that contains enough belonging, identity, meaning, and purpose to keep dislocation under control without having to meditate two hours a day. (As society's fragmentation increases, I fear that it could soon require 4 or 8 or 16 hours of meditation each day to keep dislocation at bay)

I also have misgivings about living-in-the-present-moment doctrines, because I think living a full life depends on being fully aware of past history and the challenges of the future as informed by memories of the past, rather than focussing too intently on oneself in the present moment. Erik Erikson has made this point eloquently. One of the chief problems of addicted people who I know is that they never stop focussing on themselves. Of course there are moments when we need to take care of our addictive issues in solitude by concentrating on our own experience of the present moment (e.g., Peltz,

2013, pp. 26-30), but this seems to me far from an adequate philosophy for therapy or for life.

I am uncertain about this issue, because many friends disagree with me and because I have benefitted from these esoteric practices myself. But in the end, I fear that intervention based on esoteric practices will comprise, at most, one component in successful treatment experiences and that treatment itself, in all its forms, will comprise only a small part in bringing the problem of addiction under control in the modern world.

5. Harm Reduction.

Needle exchanges, Methadone maintenance, safe injection sites, buprenorphine, Suboxone, heroin maintenance, and stimulant maintenance are offered to drug users in many places, along with information about how to use their drugs in the safest possible ways.

Addicted people who are receiving harm reduction services are often offered access to treatment as well, but are not asked to give up their addictive habits as a condition of treatment – although they may chose abstinence if it makes sense to them. This approach is now being called "harm reduction treatment" (Little, 2015; Rothschild, 2015). The emphasis in harm reduction treatment is often on encouraging people to pursue their own plans for recovery, either alone or in cooperation with others.

MY VIEW: Harm reduction services have proved valuable for many people who desperately need drugs to function in the world but are not addicted to more self-destructive, criminal aspects of the injecting drug user life style. Lives are saved that would otherwise be lost to needle-born diseases, overdoses, and violence. And harm reduction services keep harmless people out of jail and reduce the harm that desperate street drug users do to society as well. Increasingly, harm reduction treatment is not necessarily restricted to people who are using harm reduction services. I am proud of the fact that Vancouver has become a model city for harm reduction in North America.

The term, "harm reduction," has so far been mostly limited to drug and alcohol addictions, but I think there is room for expansion of harm reduction into other kinds of addiction as well.

Still, harm reduction leaves the underlying societal roots of addiction in place and only minimally incorporates addicted people into the lives of their community. It scarcely reduces the harmful consequences of addiction on society, because it is still largely limited to drug addiction. Moreover, it offers little by way of preventing people from falling into addiction in the first place. Although I have been an enthusiastic part of the harm reduction movement throughout much of my career, I predict that, like biomedical and psychological treatment, it will eventually have only a small role in overcoming global society's addiction problem.

6. Recovery Movement (Small Scale Social Change).

Many organizations are now devoted to organizing with others to transform society on a local level so that people can live a less dislocated life. When this is done specifically for or by people who are struggling with addictions, it is sometimes called the "Recovery Movement." I have seen many more of the groups that comprise the Recovery Movement in Vancouver and elsewhere than I can mention here: e.g., Heart of the City Festival; many endeavours of the Portland Hotel Society (e.g., The Life Skills project), the Longhouse Ministry of the United Church in East Vancouver; the many branches of Addaction in the UK, "Housing First" in the US, Gaadejuristen in Denmark, and Ozanam House in Kelowna, BC.

The churches of mainstream religions, and the twelve-step groups that have derived from Alcoholics Anonymous have a place of honour as pioneers of the recovery movement and still provide much of its energy. However many of the more recent groups have modified some fundamental religious beliefs and some of the original twelve-step principles and practices.

Much personal counselling and social work can be considered part of the recovery movement as well, when it focuses on helping people to find a place in their community and to maintain it. Professionals often steer people towards twelve-step and other recovery groups as well as encouraging them to join other groups and treating them individually.

Some aspects of the Recovery Movement work with children in a preventative way, before the children are at serious risk of any form of adult addiction: The St. James Music Academy in Vancouver is a wonderful example of this.

MY VIEW: Historical and clinical studies of addiction reveal that when people's dislocation is overcome, most of them do not become addicted and people who have become addicted can leave their addictions behind. However, it is extremely difficult to help people overcome their dislocation even in the enlightened context of today's recovery movement, for two reasons.

The first reason is that the dislocation arising from a deeply fragmented outer world still breaks though into a less fragmented local society. The second is that there is no universal formula for overcoming dislocation. Each person has a unique set of requirements for what constitutes a fulfilling. A local culture that effectively minimizes dislocation cannot be established by fiat. It has to be constructed painstakingly over a considerable period of time, probably generations, and it is impossible to know in advance what combination of possibilities will provide a basis for psychosocial integration in a particular group of people. As Marc Lewis (2015) has pointed out, "recovery" may not be quite the right term, because much of the work that is necessary

to overcome addiction is not returning to a kind of psychosocial integration that they had previously, but fabricating a quite new kind of individual outlook and local culture from the wreckage of the past.

We know how to put elements that support individual and social well-being in place, but we don't know exactly how to breathe life into them. In a sense psychosocial integration is like the biology of life itself: We know all the chemical ingredients of life, but we still do not know how to create it in the laboratory. As some point we just have to do all that we can and sit back and wait, and hope, for the results of recovery groups to appear – and they often do.

7. Large Scale Social Change.

Ultimately, changing the vicious cycle that underlies addiction – and many other interrelated social problems – will require large-scale social change. In fact, it will require nothing less than reshaping world society to defang the vicious cycle that is depicted by the historical view. Ultimately, this kind of change must come much more at the national and international level than at the individual or local level.

Of course, emphasizing large-scale social change does not deny the utility of the kinds of intervention that have already been discussed. They do help many people, but they cannot by themselves overcome the flood of addict that is engulfing modern civilization.

The clearest call for large scale social change that I know is contained in a legend first told to me by a native grandmother who was also a drug counsellor for the people on her reserve. The legend is that drug counsellors of her tribe in northern Canada sit by the side of a raging northern mountain river and watch. When they see somebody being swept away in the raging white foam of addiction they jump in to rescue them. They know how to swim through the rapids to the drowning swimmer because their elders have told them where the rocks are hidden. Using all their strength, they eventually reach the addicted person and drag him or her through the torrent to the shore and with their last ounce of strength heave them up on the bank.

Sometimes it is too late and the effort is wasted. The addicted person slips off the riverbank and is lost again in the foam. But sometimes he or she stands up and walks from the river into the forest, re-joining the people, returning to the land.

When someone is saved, the storyteller told me, counsellors swell with pride. They feel that they are warriors! They would feel that they are making a great contribution to their people except…

… Except, she said, that some son-of-a-bitch upstream is throwing more and more people into the water all the time! The counsellors eventually realize that they are not

winning but losing, for all their heroic efforts, but they persist anyway.

I believe that we who care about addiction and the environment must continue the heroic rescue work, but I also believe that the even more essential task is getting rid of "the-son of-a-bitch upstream," i.e., the vicious cycle that is described by the global, historical view of addiction.

When we get around to facing the son of a bitch upstream, we will also need to face the fact that we don't know exactly what to do about him yet, despite the genuine sophistication that we have achieved in understanding and treating addiction on an individual level. People sometimes say that if our society can put a man on the moon, surely we can solve our addiction problem and all the related psychological, social, and environmental issues. But is this right? I am fond of a quote from Ed Ayers who pointed out that: "Building a liveable world isn't rocket science; it's far more complex than that." (quoted by Klein, 2014a, p. 280).

I am even more fond of a quote from the great religious and scientific thinker, Thomas Berry, who argues that we need a deep cultural therapy that cannot be described entirely in the language of science because it has a spiritual aspect that is as important as its rational aspect. As Berry put it:

What is most needed in addition to the new technologies integrating our human needs with solar energy and the organic functioning of planetary life systems is a deep cultural therapy that will identify the sources of our pathology and provide a way of returning to the jubilant life expression that should characterize any human mode of being (Berry, 2009, p. 138, italics added).

If Berry is right, we cannot envision or plan our future. However, we can work towards it nonetheless. This is possible because of the countless spiritual, social activist, environmentalist, and social recovery groups that are each seeking to overcome the vicious cycle in its own way (Hawken, 2007). These groups are found around the world, in every country. The eventual fusion of this enormous pool of human energy into a new, more coherent civilization that *can provide a sustainable habitat for psychosocially integrated human beings who will be unlikely to become addicted in the first place,* as well as providing an environment in which people who have become addicted are likely to recover. Unlike most of the other six approaches to addiction this one does not focus primarily on drug addiction, because all kinds of addiction can be alleviated in the more coherent civilization that it envisions.

Within this approach the distinction between the problem of addiction and the other, interrelated problems of modernity such as environmental destruction and unbearable social inequalities fades away. The task of major social change is to be undertaken with hope and faith, even in the absence of a definite blueprint for the outcome, but with

assurance that success is possible. Do we have a more credible source of hope than this?

Conclusion

Is it conceivable that the entire global society should be reshaped to bring addiction under control? The idea seems outlandish when it is stated that narrowly. But when the broader social context is considered historically, the picture changes.

The emerging global society of the twenty-first century is going to be reshaped, if it is going to survive. At the very least it will have go be reshaped socially and politically to avoid catastrophic climate change (Klein, 2014a; Pope Francis, 2015). It will have to be reshaped economically to overcome the obscene inequalities of wealth between individuals and nations that are quickly reaching the point of breaking down the existing system (Rowbotham, 1998; Stiglitz, 2015). It will have to be reshaped on the geopolitical level to reduce the ever-hovering threat of thermonuclear war, which remains a terminal accident waiting to happen.

If the nightmare scenarios are to be avoided, the coming changes are going to be designed by the rational and compassionate thinkers, who will see that psychological problems, including addiction, are inextricably intertwined with the environmental, economic, and political problems that threaten us so severely. (For a detailed analysis of the connections between addiction and the ecological crisis, see Alexander, 2015). The forthcoming changes in twenty-first century civilization will deal with the psychological aspects of global problems, if they are to achieve their vital ends.

Controlling addiction, and the other interrelated problems, in this context will be the work of generations. It will be carried out partly by people working together to help other people recover from addiction by finding a place in their community. More immediately, bringing addiction under control depends on the success of a great variety of social and environmental movements that seek to reduce societal fragmentation in diverse ways. None of these movements can offer a short-term solution. However, they can offer both the possibility of success and the opportunity for enhancing our own belonging, identity, meaning, and purpose. It is hard for me to imagine a better project for the remaining years of my own life.

This line of thought was unthinkable to all but a very few people when I began my career in the study of addiction almost a half century ago. Still today, it remains unthinkable in the vast institutions of wealth and power that rule the world at this point, as well as the mainstream media and the national governments that faithfully serve them. This is a change that must flow upwards from the bottom of the hierarchy of power and wealth.

This process is underway, although its success is by no means guaranteed. Will you join in? You will not have to look very far in your own locality to find local organizations with potentially broad impact of the sort I am describing. They provide the best hope of

the world solving its addiction problems – and many other crucial, interrelated problems – and they need your help.

References

Ahmed, S.H., Lenoir, M., & Guillem, K. (2013). Neurobiology of addiction versus drug use driven by lack of choice. Current Opinion in Neurobiology, 23, 581-587.

Albrecht, G. (2012, August 7). The age of Solastalgia. The Conversation. Retreieved January 1 2015 from http://theconversation.com/the-age-of-solastalgia-8337

Alexander, B.K. (1990). Peaceful measures: Canada's way out of the 'War on Drugs'. Toronto, Ontario: University of Toronto Press.

Alexander, B.K. (2008/2010). The globalization of addiction: A study in poverty of the spirit. Oxford, UK: Oxford University Press.

Alexander, B.K. (2009). Thinking more deeply about harm reduction: An open letter to Margaret Wente. Retrieved August 9 2015 from www.brucekalexander.com/articles-speeches/harm-reduction/214-margaret-wente-5

Alexander, B.K. (2010) Addiction: The view from Rat Park. Retrieved July 26 2015 from www.brucekalexander.com/articles-speeches/rat-park/148-addiction-the-view-from-rat-park

Alexander, B.K. (2014). The rise and fall of the official view of addiction. Retrieved 26 July, 2015 from http://www.brucekalexander.com/articles-speeches/277-rise-and-fall-of-the-official-view-of-addiction-6

Alexander, B.K. (2015). Addiction, environmental crisis, and global capitalism. Retrieved 14 August 2015 from www.brucekalexander.com/articles-speeches/283-addiction,-environmental-crisis,-and-global-capitalism

Alexander, B.K. (in preparation). Alcohol Prohibition Among the Tse-Shaht Indians, 1860-1865: A Natural Experiment" Revised version of presentation at 5th International Conference on the History of Drugs and Alcohol: Pathways to Prohibition, Glasgow, June 27 2009.

Alexander, B.K., Peele, S., Hadaway, P.F., Morse, S.J., Brodsky, A., & Beyerstein, B.L. (1985). Adult, infant and animal addiction. In S. Peele (Ed.), The meaning of addiction: Compulsive experience and its interpretation (pp. 73-96). Lexington, MA: D.C. Heath.

Berardi, F. (2009). Precarious Rhapsody: Semiocapitalism and the pathologies of the post-alpha generation. Brooklyn, New York: Autonomedia.

Berry, T. (2009). The Sacred Universe: Earth, Spirituality, and Religion in the Twenty-first Century. New York: Columbia University Press.

Bollier, D. (2014). Think like a commoner: A short introduction to the life of the commons. Gabriola Island, BC: New Society Publishers.

Bowlby, J. (1969). Attachment. Volume I of Attachment and Loss. New York: Basic Books.

Brand, R. (2013, October 24). Russell Brand on revolution: "We no longer have the luxury of tradition." The New Statesman. Retrieved June 10 2014 from http://www.newstatesman.com/politics/2013/10/russell-brand-on-revolution

Burroughs, W.S. (1967, July). Kicking drugs: A very personal story. Harper's, 235, 39-42.

Chandler, M.J., Lalonde, C.E., Sokol, B.W., and Hallet, D. (2003). Personal Persistence, Identity Development, and Suicide: A Study of Native and Non-Native North American Adolescents. Monographs of the Society for the Study of Child Development, 68(2).

Chödrön, P. (2000). When things fall apart: Heart advice for difficult times. Boston, Massachusetts: Shambhala.

Chossudovsky, M. (2003).The Globalization of Poverty: Impact of IMF and World Bank Reforms. London, UK: Zed.

Democracy Now (March 18, 2014). A Sliver of Light: Freed U.S. Hikers on Captivity in Iran & Activism Against Solitary Confinement (Amy Goodman interview).

Deraniyagala, S. (2013). Wave: A memoir. Toronto: McClelland & Stewart, pp. 55-59

Dufour, D.-R. (2003). L'art de réduire les têtes; Sur la nouvelle servitude de l'homme libéré à l'ere du capitalisme total. Paris: Édition Nöel.

Durkheim, E. 1951. Suicide: A study in sociology, trans. J.A. Spaulding and G. Simpson. Glencoe, IL: Free Press (original work published 1897).

Frankl, V.E. (1963). Man's search for meaning: An introduction to logotherapy. New York, NY: Pocket Books.

Friedman, R.A. (2015, March 6). The Feel-Good Gene: Those of us who don't have this natural bliss are more likely to be anxious and to self-medicate. The New York Times. Retrieved August 15 2015 from www.nytimes.com/2015/03/08/opinion/sunday/the-feel-good-gene.html
Hall, W., Carter, A., and Forini, C. (2015). The brain disease model of addiction: is it supported by the evidence and has it delivered on its promises?? The Lancet: Psychiatry, 2, 105-110.
Hari, J. (2015). Chasing the Scream: The first and last days of the war on drugs. London: Bloomsbury.
Hart, C. (2013). High price: A neuroscientist's voyage of self-discovery that challenges everything you know about drugs and society. New York, NY: HarperCollins.
Harvey, D. (2011). The enigma of capital and the crises of capitalism. London, UK: Profile Books.
Hawken, P. (2007). Blessed Unrest: How the largest social movement in the world came into being. New York, NY: Viking.
Horgan, J. (2015, March 13). N.Y. Times hype of "Feel-Good Gene" makes me feel bad. Scientific American Blogs. http://blogs.scientificamerican.com/cross-check/2015/03/13/n-y-times-hype-of-feel-good-gene-makes-me-feel-bad/
Klein, N. (2007). The Shock Doctrine: The Rise of Disaster Capitalism (Toronto, Ontario: Knopf).
Klein, N. (2014a). This changes everything: Capitalism vs. the Climate. Toronto, ON: Knopf, Canada.
Levitin, D.J. (2015). Why the modern world is bad for your brain. The Guardian (The Observer), Retrieved January 18 2015 from http://www.theguardian.com/science/2015/jan/18/modern-world-bad-for-brain-daniel-j-levitin-organized-mind-information-overload
Levy, N. (2013). Addiction is not a brain disease (and it matters). Frontiers in Psychiatry, 4 (article 24), 1-6;
Hart, C. (2013). High price: A neuroscientist's journey of self-discovery that challenges everything you know about drugs and society. New York, NY: HarperCollins.
Lewis, M. (2015). The biology of desire: Why addiction is not a disease. New York, NY: Public Affairs.
Little, J. (2015). What's under the harm reduction umbrella, Part One. The Fix. Retrieved May 28 2015 from http://www.thefix.com/content/under-harm-reduction-therapy-umbrella-part-1
Macpherson, D. (2014, April 9). Come join the Canadian Drug Policy Foundation. A New Drug Policy for Canada? Retrieved February 8 2015 from http://donaldmacpherson.ca/
Mann, C.C. (2011). 1493: Uncovering the New World Columbus created. New York, NY: Vintage Books.
Maté, G. (2008). In the Realm of Hungry Ghosts: Close Encounters with Addiction. Toronto, ON, Knopf, Canada, pp. 205-207.
Maté, G. (2015). Toxic Cultures | Bioneers. Youtube. Retrieved March 29 2015 from https://youtu.be/erZhTPkOLb
McLaren, L. (2014, March 17). All the lonely old people. Maclean's, 127(10), 36.
McWilliams, J. (2015, Spring). Inside Big Ag: On the Dilemma of the Meat. Virginian Quarterly Review. Retrieved July 29, 2015 from www.vqronline.org/nonfiction-criticism/2015/04/inside-big-ag-dilemma-meat-industry
Munro, 2015. www.forbes.com/sites/danmunro/2015/04/27/inside-the-35-billion-addiction-treatment-industry/).
Neuman, W. & Romero, S. (2015, May 15). Latin American allies resist U.S. strategy in drug fight. The New York Times. Retrieved May 17, 2015 from www.nytimes.com/2015/05/16/world/americas/latin-america-and-us-split-in-drug-fight.html
Nikiforuk, 2015 January 10, Fracking Industry Shakes Up Northern BC with 231 Tremors. The Tyee. Retrieved January 17 from
phttp://thetyee.ca/News/2015/01/10/Fracking_Industry_Shakes_Up_Northern_BC/
Peele, S. & Thompson, I. (2014). Recover! Stop thinking like an addict and Reclaim your life with the PERFECT program. Boston: Da Capo.
Peltz, L. (2013). The mindful path to addiction recovery: A practical guide to regaining control over your life. Boston, Massachusetts: Trumpeter.
Pickard, H. (2012, April 18). The purpose in chronic addiction. AJOB Neuroscience, 3 (2), 40-49. Retrieved August 15 2015 from www.ncbi.nlm.nih.gov/pmc/articles/PMC3378040/
Polanyi, K. (1944). The great transformation: The political and economic origins of our times. Boston, MA: Beacon.
Pope Francis (2015, May 24). Laudato Si: On care for our common home. Encylical Letter. Retrieved August 10 2015 from http://w2.vatican.va/content/francesco/en/encyclicals/documents/papa-francesco_20150524_enciclica-laudato-si.html
Pryor,W. (2003) The Survival of the Coolest: an Addiction Memoir. Bath, UK: Clear Press.
Reding, N. (2009). Methland: The death and life of an American small town. New York, NY: Bloomsbury.

Risen, J. (2014). Pay any price: Greed, power, and endless war. New York, New York: Houghton, Mifflin, Harcourt.
Rothschild, D. (2015, February 5) The "third wave" of substance abuse treatment. The Fix, www.thefix.com/content/third-wave-substance-use-treatment
Rowbotham, M. (1998). The grip of death: A study of modern money, debt slavery, and destructive economics. Charlbury, UK: Jon Carpenter.
Ryan, D. (2013, Sept. 28). Lonely at the top, but loving it: Joo Kim Tiah finds solitude drives him to business success. The Vancouver Sun, pp. C1-C2.
Ryan, D. (2014a, April 26). Hastings Park gallops on: The glory days are gone but Vancouver's racetrack still has its own unique community. The Vancouver Sun, pp. B11-B12.
Ryan, D. (2014b, April 26). Living the life: The mystical beauty of horses and family of racetrack personalities captivate Vancouver author Kevin Chong. The Vancouver Sun, p. B12.
Satel, S. & Lilienfeld, S.C. (2013). Brainwashed: The seductive appeal of mindless neuroscience. New York: Basic Books.
Scripps Research Institute News Release (2015, August 4). Scripps Florida Scientists Make Strides in Therapy Preventing Addiction Relapse by Erasing Drug-Associated Memories. Retrieved August 9 2015 from www.scripps.edu/news/press/2015/20150804miller.html
Sheff, D. (2008). Beautiful Boy: A father's journey through his son's addiction. New York: Houghton, Mifflin, Harcourt.
Sheff, N. (2009). Tweak: Growing Up on Amphetamines. New York, NY: Athenum Books for Young Readers.
Slater, P. (1980). Wealth addiction. New York: Dutton.
Snowden, E. (2014, June 7). How the National Security State kills a free society. Reader Supported News. Retrieved June 7 2014 from: http://readersupportednews.org/opinion2/277-75/24094-how-the-national-security-state-kills-a-free-society
Stiglitz, J.E. (2015, August 6). America is on the wrong side of history. The Guardian. Retrieved August 10 2015 from www.theguardian.com/business/2015/aug/06/joseph-stiglitz-america-wrong-side-of-history
Surowiecki, J. (2104, June 26). Real estate goes global. The New Yorker. Retrieved June 4 2014 from www.newyorker.com/talk/financial/2014/05/26/140526ta_talk_surowiecki
Tharoor (2014, November 12). The haunting poetry of a chinese factory worker who committed suicide. The Washington Post. Retrieved November 16 2014 from http://www.washingtonpost.com/blogs/worldviews/wp/2014/11/12/the-haunting-poetry-of-a-chinese-factory-worker-who-committed-suicide/
Tolman, C.W. (2013). Sumus ergo sum: The psychology of self and how Descartes got it wrong. In W.E. Smythe (Ed.), Toward a psychology of persons. New York, NY: Psychology Press (pp. 3-24).
Tutu, D. (2010). Ubuntu. Tutu Foundation. Retrieved August 10 2014 from http://www.tutufoundationuk.org/ubuntu.php
Tolle, E. (2005). A new earth: Awakening to your life's purpose. New York, NY: Penguin.
Verhaeghe, P. (2014, October 3-9). Neoliberal economy brings out worst in us. The Guardian Weekly, p. 18.
Watson, S.J. (2015, February 11). The top 10 books about addiction. The Guardian. Retrieved February 15, 2-15 from http://www.theguardian.com/books/2015/feb/11/top-10-books-about-addiction
Webster, P. (2014, March 25). Canada blocking UN support for harm reduction: Observers. The Tyee. Retrieved February 8 2015 from http://thetyee.ca/News/2014/03/25/Canada-Blocking-Harm-Reduction/
Welch, I. (2015, January 10). American Psycho is a modern classic. The Guardian. Retrieved Jan. 12 2015 from http://www.theguardian.com/books/2015/jan/10/american-psycho-bret-easton-ellis-irvine-welsh
White, P. (2014, Dec. 6). Solitary: A death sentence. The Globe and Mail, F1-F9.
White, W. (2011). Transformation of the Culture of Recovery in America. Dawn Farm. Retrieved 8 February 2014 from http://vimeo.com/31925737
White, W.L. (1998). Slaying the dragon: The history of addiction treatment and recovery in America. Bloomington, IL: Chestnut Health Systems/Lighthouse Institute.
Wilkenson, R. & PIckett, K. (2009). The spirit level: Why greater equality makes societies stronger. New York, NY: Bloomsbury Press.
Williams, M., Teasdale, J., Segal, Z., and Kabat-Zinn, J. (2007). The mindful way through depression: Freeing yourself from chronic unhappiness. New York: Guilford.
Wilson, E.O. (1984). Biophilia. Cambridge, MA: Harvard University Press.
Wilson, G. (2013). Notes from speech delivered at Our Children, Climate Faith Conference August 16, 17 at Strafford, Vermont, USA.
Wolff, R. (2012, June 24). Yes, there is an alternative to capitalism: Mondragon shows the way. The

Guardian. Retrieved February 9, 2013, from www.guardian.co.uk/commentisfree/2012/jun/24/alternative-capitalism-mondragon
Wolin, S.S. (2008). Democracy incorporated: Managed democracy and the specter of inverted totalitarianism. Princeton, NJ: Princeton University Press.
Woo, A. (2015, March 24). Bill C-2 could impede harm-reduction sites, advocates say. The Globe and Mail. http://www.the.com/news/british-columbia/bill-c-2-could-impede-harm-reduction-sites-advocates-say/article23608197
Wright, J. (2004). God's soldiers: Adventure, politics, intrigue, and power – A history of the Jesuits. New York, NY: Doubleday.
Zenit.org (2014, June 20). Pope's address to conference against drugs. Retrieved June 29 2014 from www.zenit.org/en/articles/pope-s-address-to-conference-against-drugs

The Rise and Fall of the Official View of Addiction

Bruce K. Alexander, Professor Emeritus
Simon Fraser University
Revised July 3 2014

Confession and Plea to the High Court in the Field of Addiction:
Herewith, I confess to the charge of attempted murder. My intended victim was – and still is – the Official View of Addiction, sometimes known in the field by its aliases including, "the brain disease model of addiction" or "The NIDA model". The presentation below contains irrefutable evidence of my guilt. However, it also expresses my plea to the High Court that ridding the world of the Official View of Addiction is justifiable and that its useful aspects can be preserved within a different paradigm.

I understand that a plea of justifiable attempted homicide will require meticulous examination by the Court. The structure of my plea is as follows. I show that the word "addiction", which has a long history in the English language, was kidnapped in the 19th century by medical and moralistic interest groups, who drastically restricted its meaning for their own purposes. Despite the meager success of their treatment methods and the futility of their ferocious alcohol and drug prohibitions, their truncated views of addiction have been legitimatized in recent decades as a doctrine which is, I submit, properly called the "Official View of Addiction". Although the Official View of Addiction is often represented a new development in high-tech neuroscience, it is basically a nineteenth century view of the nature of addiction, tarted up with brilliantly coloured brain scans. The Official View currently dominates discussion of addiction in the United States. It also exerts its counterproductive influence in many other countries of the world.
My presentation shows that all six foundational elements of the Official View are untenable. Worse still, I will show that the stultifying, richly funded Official View stands in the way of a rigorous, scholarly examination of addiction. It therefore leaves the world at the mercy of a devastating addiction problem that has been rendered incomprehensible. I submit that, in cases like this, assassination is a lesser evil than the continued existence of the pernicious Official View.
My presentation to the High Court is a revision of a presentation initially given at an expert conference of the Social Trends Institute in Barcelona 15-17 April 2010 on the "Construction of New Realities in Medicine". A revised version of this presentation is being published as Alexander, B.K. (in press). Replacing the official view of addiction. In Davis, J.E. and Gonzalez, A.M. (Eds.). To Fix or To Heal: Conflicting Directions in Contemporary Medicine and Public

Health. New York, NY: NYU. The presentation was also given, in much revised form, to an expert conference on "Addiction(s) – Social and Cerebral" sponsored by the European Neuroscience and Society Network in Helsinki, 8-11 September, 2010. The presentation has been updated and revised repeatedly on my website since 2010, and is still being revised. A longer exposition of the ideas in these presentations can be found in my book, The Globalization of Addiction: A study in poverty of the Spirit. (paperback edition, 2010, Oxford University Press).
Respectfully Submitted to the High Court,
Bruce K. Alexander

Summary
The world faces a deadly serious problem of addiction to countless habits and pursuits, including the use of drugs and alcohol. Bringing this problem under control will require a better conceptualization of addiction than the Official View that is currently being globally promulgated, most prominently by the National Institute of Drug Abuse, the American Society of Addictive Medicine, and the American Board of Addictive Medicine. I am not arguing that this Official View needs to be improved, but that it is fundamentally wrong and needs to be replaced with a more productive paradigm.
This presentation approaches the task of replacing the Official View historically. It first describes the traditional way of using the English word "addiction" prior to the 19th century, which was, for the most part, neither medical, nor moral, nor linked to drugs. Then it describes the emergence of a 19th century definition of addiction that was simultaneously medical, moral, and tightly linked to drugs. It shows that the medical/moral/drug re-definition of “addiction” eventually crowded out the traditional way of using the word and became the core of the Official View of Addiction. Then it shows why the Official View, even in its most up-to-date form, provides neither an adequate basis for understanding addiction nor a basis for effective intervention.
The latter portion of the presentation describes a completely different paradigm, which I call the "Dislocation Theory of Addiction.” The Dislocation Theory is built on the broad, traditional meaning of "addiction" rather than the medical/moral/drug re-definition of the nineteenth century. Although Dislocation Theory is not new, it may be startling to some readers, because it repudiates all six foundational elements of the Official View, which have come to seem unquestionable because of their identification with high-tech neuroscience, their widespread professional support, and their endless, powerful dramatizations in mainstream media.
Dislocation Theory draws attention to social causes of addiction that can only be remedied through deep changes in the status quo of modern society. The fact that the Official View does not threaten the status quo in any serious way may help to explain how it has become so deeply entrenched in the public mind and in officialdom, despite its conceptual weakness and practical inefficacy.

Pre-history of the Official View
The word "addiction" had a traditional meaning in the English language that was well established by the time of Shakespeare. This traditional English meaning was neither medical nor moral in character, nor was it strongly linked to alcohol and drugs. In all these ways it was similar to the ancient Latin noun, addiction-em, from which it was derived.1
Traditional English usage was well established long before it appeared as a formal definition in the first "fascicule" of the Oxford English Dictionary (OED), published in 1884. This time-honoured definition reappeared, essentially unchanged, in all subsequent editions of the OED

until 2010 when the wording was brought up to date, although the essence of the traditional meaning was preserved.2

Here is the traditional definition as it appears in the 2010 edition of the OED (definition 1a). This is how the word “addiction” was used by Shakespeare, the authors of the King James Bible, David Hume, Jane Austin, Charles Dickens, and other great masters of the English language, as well as everyday writers and speakers over the centuries:

The state or condition of being dedicated or devoted to a thing, esp. an activity or occupation; adherence or attachment, esp. of an immoderate or compulsive kind.

The invention of Google nGram viewer in 20113 makes it relatively easy to examine many thousands of uses of the words “addiction” and “addicted” in the printed English language since about 1600. In the great majority of cases, the word was used to assert that a person was doing something regularly and predictably, without any implication of moral turpitude or medical illness and without any reference to alcohol or drugs. For example, George Smollett Tobias published an account of a trip to post-revolutionary France in the English Critical Review in the early nineteenth century. He spoke good-humouredly of “French peculiarities” as follows:

… versatility, or universal love of change; female superficiality; competence and content of the peasantry; addiction, in all ranks, and at all places to dancing; and the general propensity to talk, and to act, in public. (p. 614).

Traditional usage was sometimes more weighty. Shakespeare, for example, used the word with gravity in The Life of King Henry the Fifth, written around 1599. In a tense moment near the start of the play, the Archbishop of Canterbury describes Henry V as a great sovereign and intellectual, adding that this is "a wonder" because, as a younger man:

... his addiction was to courses vain,
His companies unlettered, rude, and shallow,
His hours filled up with riots, banquets, sports;
And never noted in him any study,
Any retirement, and sequestration,
From open haunts and popularity.4

As the play unfolds, knowledge of Henry V's youthful addiction to raucous socializing to the detriment of his kingly studies gives unwise confidence to his archenemy, the Dauphin of France.5 It is not until King Henry proves invincible in battle and magnanimous in victory that his earlier addiction is forgotten, in the final act of the play. Henry's youthful addiction is never discussed in a medical, moral, or alcohol and drug context during the play. It is, however, discussed in a strategic context. Both friends and enemies of England speculate about the possible effects of the king's youthful addiction on England's military strength.

The weight of the word "addiction" when used in a positive sense can be illustrated by the King James Version of the Christian Bible, originally published in 1611. This was the standard Bible for English-speaking Protestants until the mid-20th century. The word "addicted" appears in 1 Corinthians, a letter from St. Paul to the early Christian community at Corinth. In this letter, Paul chastises Corinthian Christians for moral laxity, finding it necessary to address them as children rather than mature Christians. At the end of the letter, he urges them to emulate the members of the family Stephanas, whom he praises because they are addicted:

16:15 I beseech you, brethren, (ye know the house of Stephanas, that it is the firstfruits of Achaia and that they have addicted themselves to the ministry of the saints,)

16:16 That ye submit yourselves unto such, and to every one that helpeth with us, and laboureth.6

In Paul's eyes, the fact that members of the Stephanas family "addicted themselves to the ministry of the saints" did not make them sick, immoral, or drug abusers. On the contrary, it made them role models for the wayward Corinthians. Although 20th century translations7 of these biblical verses make the same point, they do not use the word "addicted" which by the late 19th century had begun to evoke images of sickness, moral failure, and drug and alcohol misuse that would confuse Paul's laudatory intent. Although "addiction" is still a literally correct term to apply to devout Christians according to definition 1a of the Oxford English Dictionary, it has become prudent to avoid it.

Use of alcohol and psychoactive drugs was well known throughout Western history, and the fact that some users became severely addicted was well understood. But drug addiction was not a matter of sustained concern to either physicians or moralists before the 19th century.8 For example, opium use in England was not usually discussed in a medical and moral context until the mid-19th century. Opium was legal and large numbers of people from all social classes used it. Regular opium users were most often called "opium eaters". Not all opium eaters fit the traditional definition of addiction, but some definitely did.9 Even as late as 1821, when Thomas DeQuincy first described his serious addiction to opium in “Confessions of an English Opium Eater” in London Magazine, the public's reacted with interest and literary excitement, but not "fear or a desire for control".10 No matter what word was used for it, opium addiction was not generally situated in a medical or moral context until later in the century. Berridge and Edwards11 summarized the imminent construction of the medical/moral/drug perspective on opium later in the 19th century in this way:

Regular opium users, 'opium eaters', were acceptable in their communities and rarely the subject of medical attention at the beginning of the century; at its end they were classified as 'sick', diseased or deviant in some way and fit subjects for professional treatment…[T]he establishment of a whole new way of looking at drug use…requires analysis.12

The Medicalization, Moralization, and Pharmacologization of Addiction

In the 19th and early 20th centuries, modern scientific medicine subdued mass murderers that had long plagued the human race, including small pox, cholera, typhoid, and rheumatic fever.13 Quite independently, this same period also witnessed an extended moral panic over increases in excessive drinking of distilled spirits and, later, excessive use of opium, morphine, chloral hydrate, cocaine, heroin, and other drugs. These habits affronted the bourgeoning modern ideals of independence, masculinity, and self-sufficiency.14 In the confluence of these two historical movements, the meaning of the word "addiction" was gradually medicalized, moralized, and restricted to alcohol and drugs.15

Historians do not find it surprising that the definition of addiction was medicalized and moralized at about the same time. Although the scientific medicine and Christian moralism of the 19th century were rooted in opposing metaphysics, they had similar views of human nature.16 Often the same people were members of medical associations, temperance societies, and anti-drug movements and held both medical and moral views of addiction.17 The medical approach to excessive drinking and drug use was neither dramatic nor particularly successful and it did not readily capture the public imagination right away. However, the moral approach went viral, and one of the major mass movements of the 19th century was born.

The powerful, popular temperance movement in North America and Europe proclaimed that liquor, characterized as "ardent spirits", "hard liquor", or "demon rum",18 was breaking down civilized society. Notwithstanding the hyperbole, the temperance movement's perception that a serious problem existed was well founded. Although most Europeans and Americans drank prudently even when they drank regularly, a growing minority, particularly visible in the working class, was adopting the drunken, socially abhorrent lifestyles that the temperance movement

decried.19 The movement first spoke of excessive drinkers as "inebriates", "drunkards", "sots", and the like, but the word "addicts" gradually came into use as well.20 The temperance movement began appropriating the word "addiction" as the name of a moral failure at about the same time that the medical profession began appropriating it as the name of a disease.

Although the way that the doctors and moralists increasingly used the word "addiction" did not directly contradict the traditional meaning of addiction, their usage was both narrower and more dramatic. It limited addiction to people who were overwhelmingly involved with distilled spirits and it was to be understood as a disease, a moral failure, or both.

By the end of the 19th century, the sensational images of the temperance movement had become archetypes for new anti-drug movements, first the anti-opium movement and, later, popular movements that aimed to rid the planet of many other drugs.21 Like the temperance movement, the anti-drug movements increasingly conflated all drug users with the most destructive and intractable addicts, ignoring the fact that the majority of drug users were not anti-social or addicted. All drug users were perceived to be on the verge of becoming "hooked" by their drug and of abandoning their family, work, community, self-respect, and religion. All drug addicts were said to be dishonest and ruthless in the compulsive pursuit of their drug. People hooked on drugs were given labels like "drug fiends", "opium drunkards", "morphinomaniacs", "hopheads", and "junkies" as well as "drug addicts". Simultaneously with their moral ruination, addicted people were often said to suffer from the disease of addiction and to be in urgent need of medical treatment.22

Images of medically and morally ruined alcoholics and junkies were engraved in public consciousness by the new photographic newspapers of the 19th century23 and the electronic media of the 20th. In North America, these images were most often associated with opium in the decades around World War I,24 heroin in the decades surrounding World War II,25 "crack" cocaine in the 1990s,26 methyl amphetamine at the beginning of the 21st century27, and still more recently with oxycodone in prescription medications like OxyContin®.28

The first medical/moral/drug definition of addiction did not appear in the Oxford English Dictionary until the 1933 Supplement. A modernized version of the 1933 definition appears as definition 1b in the 2010 edition of the OED (where the traditional meaning of addiction appears as definition 1a) Here is the 1933 definition:

The, or a, state of being addicted to a drug (see ADDICTED ppl a. 3b); a compulsion and need to continue taking a drug as a result of taking it in the past. Cf. drug-addiction s.v. DRUG sb.1 I b.29

The new, narrowed definition encompassed addiction to drugs (including alcohol30), but to no other habits or pursuits. Moreover, the new definition situated drug addiction in both medical and moral domains. Close examination of the 1933 definition, along with the text citations and cross-references linked to it in the OED reveals the depth of the medicalization and moralization that it expressed. The new definition was medical because, unlike the traditional definition, it had the qualities of a medical diagnosis: It was a "compulsion" that had a physical cause – taking a drug – and was accompanied by "withdrawal symptoms". (Withdrawal symptoms appeared in definition 3b of the word "addicted" which was cross-referenced within the new definition of "addiction".) The new definition was moral because there was no possibility that addiction, as redefined, could be anything but an evil. No benign words like “dedicated” or “devoted” appeared in the new definition, and the word "drug-addiction" that was cross-referenced with this definition was explained with a variety of moralistic terms, including "drug evil" and "drug fiend".31

Although medical/moral/drug definition of addiction descended from the traditional meaning of addiction logically, it had a new, sinister cast. Moreover, unlike the traditional definition, the

medical/moral/drug definition included a causal theory. Addiction had become a pathologically compulsive use of a drug caused by its prior use.

The new definition of addiction provided the core for an increasingly influential medical/moral/drug perspective on addiction, which, by the late 19th century, was shaping public policy and inspiring many forms of treatment for the new disease/moral failure.32 The balance between medical and moral emphasis shifted repeatedly during the late 19th and the 20th centuries, although the preponderant tilt was eventually toward the medical. The current form of the medical/moral/drug perspective on addiction can be called the Official View.

The Official View of Addiction: Theme and Variations

The medical/moral/drug perspective on addiction gradually worked its way into the view of politicians, of the mainstream media, of school curricula, of funding agencies, and of those scientific addiction researchers who are accorded the greatest public visibility.33 By the 1930s it had coalesced into something that some historians now call an "Official Model" in the United States.34 This Official Model continued to evolve and gain strength. Today, it is most authoritatively promoted at the global level by the American National Institute of Drug Abuse (NIDA), an organization with billion dollar budgets that claims to “coordinate” 85% of all scientific drug addiction research in the world, not just in the United States.35 Its current form expresses a strong affinity with the thinking of other prestigious groups including the Twelve-step Movement, the National Insititute of Alcoholism and Addiction, and the American Board of Addictive Medicine. All this support gives the Official View a seemingly unassailable position in the United States. Although the Official View finds less support outside the United States, it has strong advocates in most countries, particularly at the official level.36

The contemporary Official View was comprehensively and authoritatively summarized for the public in a 2007 American media package entitled Addiction: Why Can't They Just Stop? This media package includes a series of broadcasts on the American television network HBO including a 9 part documentary series with 13 supplementary documentary films and four independent films, a series of DVDs offered to the public, a profusely illustrated book, a website, and highly advertised public meetings in major American cities.37 The media package was based on interviews with twenty-two of the most highly placed American experts in addiction medicine,38 featuring Nora Volkow, the director of NIDA. It also contains contributions from authors who are best-selling exponents of the twelve-step movement.39 The project was funded by HBO, NIDA, the National Institute of Alcohol Abuse and Alcoholism (NIAAA), and the Robert Woods Johnson Foundation.40 The series won the Governors Award from the Academy of Television Arts and Sciences in 2007.

The same ideas appear in more condensed form in many other materials for the general public that are distributed free by the National Institute of Drug Abuse.41 The ideas also provide the framework for NIDA-inspired and supported professional research published by leading researchers and for a recent, thunderously authoritative article in Nature42. These ideas are espoused dramatically in highly publicized media testimonials by ordinary folks and by celebrity addicts and their families, for example Christopher Kennedy Lawford, David Sheff, and Toronto Mayor Rob Ford.43

It is important to distinguish between the Official View, which is often expressed in the language of neuroscience, and the neuroscientists who actually do the research. The Official View is presented in a rhetorical way and with great authority, with an eye to molding popular opinion, whereas the great majority of neuroscientists are more aware of the complexities of their own research, less inclined to more rhetoric and pomp, and more inclined to call at least some aspects of the Official View into question.44 As historian Nancy Campbell puts it:

Neurobiological claims are used in public discourse to stabilize a particular set of claims about innate differences and irreversible alterations of brain structure and function. Yet most neuroscientists in the substance abuse field have a considerably more multiple and elastic view… 45

The Official View can be distilled down to six foundational elements, some of which are stated explicitly and some of which are assumed and conveyed implicitly.

The first foundational element is that addiction is fundamentally a problem of drug or alcohol consumption. Even when habits other than drug use are seen as addictions, they are judged to be so by what they have in common with recognized drug addictions.

Second, so-called addictive drugs have the power to transform the people who use them into drug addicts, overcoming their normal will power. Thus, the psychology of addiction is not the same as the psychology of other kinds of behaviour. Addicted people are not acting with normal human purpose but are under the control of an external force – a drug – or of a residual of their past drug use that has “flipped a switch” in their brain.

Third, a major portion of people's vulnerability to the addictive transformation comes from inherited predispositions to addiction.

Fourth, people who become addicted suffer from a chronic, relapsing brain disease. The terms "chronic" and "relapsing" are taken to mean that there is no more possibility of a complete and final cure for this disease than there would be for diabetes, asthma, or Alzheimer's disease.46

Fifth, although people cannot be completely cured of the disease of addiction, their disease can be successfully managed through professional treatment and/or membership in self-help groups.47 If addicted people refuse treatment or eternal self-help group membership, they are expected to further damage themselves and society because there is no possibility that they can recover on their own.48

Sixth, addiction is the problem of certain dysfunctional individuals within an otherwise well-functioning society. The possibility that addiction might be a general tendency of human populations trying to adapt to a dysfunctional society is not considered.48.1

Beyond the six foundational elements, the Official View is built on a profound faith in Science and Medicine: The identification of the Official View with objective science is taken to guarantee that it is correct and certain.49 It is said that generous funding of scientific medical research will surely produce a more effective treatment for addiction, which will probably pharmacological.50

Table 1 is a summary of the Official View.

Table 1. Summary of the Official View

Foundational Element	Official View of Addiction
1	Addiction is fundamentally a problem of drug or alcohol consumption.
2	"Addictive drugs" have the power to take control of some or all of the people who use them into addicts, overcoming their normal will power.
3	A major portion of people's vulnerability to addiction comes from inherited genetic predispositions
4	People who become addicted suffer from a chronic, relapsing brain disease, which is essential incurable.
5	Although people with the disease of addiction cannot be cured, they can be successfully managed through professional treatment or membership in self-help groups.
6	Addiction is an illness of deviant individuals within otherwise well-functioning societies.
Scientific Faith	Commitment to objective science guarantees that the foundational elements of the Official View are correct and certain.

Medical Promise Medical research will soon find an effective treatment for addiction, which will probably be pharmacological.

Please note that none of these six foundational elements of the Official View were discovered by high-tech neuroscience. All are old ideas that were part of the moral and medical way perspectives on addiction of the 19th century, particularly those of the American temperance movement.51 Most can be traced much further back in history, for example to the medieval idea of demon possession, to St. Augustine's ideas of the loss of self-control in people involved in addictive types of sin,51.1 and to Aristotle's conception of "akratic" persons, who habitually act for pleasure, although their reason tells them that the consequences will be dire.51.2 Excellent contemporary research in neuroscience and psychopharmacology can be invoked as support for these foundational elements. However, I will show that none of these proofs stands up to critical examination once the life histories of real addicted people as collected by social scientists and biographers, and the history of addiction in different societies are admitted to the discussion.

Although the Official View is proclaimed in tones of unimpeachable authority by its advocates, it changes continually. Numerous variations, some quite incompatible with others, have accumulated.52 Although all six of the foundational elements of the Official View are stated explicitly or implicitly within its twenty-first century manifestations, 53 some earlier variations have been discredited within the current Official View.

Variations

The 2nd Foundational element of the Official View has both a strong and a weak variation. The strong version holds that "addictive drugs" quickly transform every drug user into an addict, overcoming his or her will power. This idea may seem to be a relic of the 19th century, but it was still the conventional view of heroin when I was a young researcher in the 1970s, and it re-appeared during the panics over crack cocaine in the 1980s and methamphetamine around the turn of the 21st century. Both drugs were said for a time to be instantly and universally addicting. These ridiculous assertions by mainstream media figures were not actively refuted in public statements of the Official View.

The 2nd Foundational element takes a weaker form in the literature of today's Official View, which now acknowledges that the majority of drug users will not become addicted even if they use the most feared drugs over lengthy periods.54 A great variety of environmental and genetic risk factors are said to predispose certain people to take drugs and to become addicted if they do, overcoming their normal will power. There is no way to confidently predict who will actually become addicted. Therefore, everybody who uses drugs is at risk of becoming addicted.55

The weak and strong forms of the 2nd foundational element share the same key idea. The drug itself is the active agent that transforms some – if not all – drug users into addicts, overcoming their normal ability to adapt to their world intelligently and morally.

In some variations of the Official View, the emphasis is shifted toward the person and away from the drug. When this is done, the image shifts from a drug-induced disease toward either a genetic or a moral disease.

In the genetic variation, a person's addiction is said to occur in large part because of a genetic predisposition inherited by some individuals. Hundreds of genes have been associated with addiction in a great variety of experimental studies. In publications that support the Official View, it is common to say that 50% or more of a person's vulnerability to addiction is due to genetic predisposition.56

As a moral disease, addiction is said to reflect a lack of the moral fiber that gives others unbending resistance to drug euphoria. This moral version is not as vehement in today's Official View as it was in the 19th century. However, Jim Orford has shown that the moral version is implicit in the practice of many types of conventional therapy, even when the explicit theory is not at all moralistic.57 As well, the moral view has an explicit, central place in the twelve-step doctrine, which is intertwined with the Official View.58

In the most current version of the Official View, the moral analysis is – paradoxically – reconfigured to be almost blameless. Although addicted people act immorally, they are not to be blamed because they have lost their will power after drugs rewired, hijacked, or took over their brains.59 "The disease makes them do terrible things but it doesn't make them terrible people."60 "No one wants to be a drug addict, after all."61 Or it can be said that their moral turpitude is a result of suboptimal choices caused by a lack of proper conditioning, rather than willful, evil intent.62

At the fringe of the Official View, the moral version takes another form which holds that the addicted person's lack of moral strength to resist drug addiction is most often caused by early childhood trauma, usually some form of child abuse. If child abuse is the primary cause of the moral weakness that characterizes addiction, addicted people cannot be blamed. This child abuse form of the moral version is at the heart of some of today's most evocative popular writings on addiction literature.63 Taken to the extreme, this child abuse version can imply that child abuse, either in overt or subtle form, is a primary cause of the global flood of addiction. It is, however, unclear whether the child abuse version is really part of the Official View because child abuse is only occasionally regarded as a predominant cause of addiction in NIDA publications,64 even though it has received powerful emphasis in the mass media.65

Another source of variation is that the drugs that have been caught in the spotlight of the Official View have shifted over the last two centuries, beginning with alcohol in the 19th century, and in later decades including opium, morphine, chloral hydrate, cocaine, heroin, marijuana, amphetamine, barbiturates, meprobamate (Miltown®), nicotine, industrial solvents and glue, benzodiazepines (Valium®), crack (i.e., cocaine again), crystal meth (i.e., amphetamine again), and oxycodone, with the prescription medication OxyContin® as its vehicle. There are growing signs that heroin use is on the upswing that heroin may be the Next Big Thing within the Official View (again).66

Just as various drugs have shifted in and out of the spotlight over time, so have the popular views of the mechanisms by which any particular drug is said to cause addiction. For example, in the oldest versions of the medical/moral/drug view of addiction as applied to heroin in the United States, individuals were said to be transformed into heroin addicts because of moral weakness (i.e., inability to resist its euphoria or to endure the painful withdrawal symptoms that it produces). For a time around World War I, immunological theories of addiction based on the idea that heroin and other drugs were "toxins" became dominant. Psychoanalytic theories of unconscious causation flourished in that same era.67 In the 1950s and 1960s, prominent scientists held that addicted people were helpless to resist to the pain of the conditioned and unconditioned withdrawal symptoms that followed abstinence from heroin.68 In the 1970s behavioural pharmacologists used data from Skinner boxes to convince the public that certain drugs were irresistibly reinforcing to man and animal, whether they produced withdrawal symptoms or not.69 Later in the 1970s, heroin was said to cause addiction in any user by providing a pharmaceutical substitute for natural endogenous painkillers or endorphins and by crippling the brain's ability to produce its natural supply of endorphins.70

In the Official View of the 1980s and 1990s, heroin and other "addictive drugs", especially cocaine and amphetamines, were said to "flip a switch in the brain" by augmenting the brain's

normal release of the neurotransmitter, dopamine, in the mesolimbic reward system of the brain. The augmented dopamine supply was said to transform the brain so that the addicted person is unable to achieve the sense of well being associated with dopamine's normal release without using addictive drugs.70.1 In the most current Official View, “drugs of addiction,” including heroin, are said to also cause addiction in several ways at once: for example by increasing the perceptual and reward salience of cues that have been associated with past drug use and by weakening the cognitive capacity of the brain to distinguish between beneficial responses and drug taking responses. Dopamine is still said to play a prominent role in this causal complex.71

Thus, while the six foundational views of addiction within the Official View have remained constant, many variations on them have come and gone. It seems likely that new variations will continue to proliferate as the older ones collapse under skeptical examination.

Why the Official View is Untenable

Although the current Official View receives unswerving support at the top of the power pyramid in the United States and in many other countries, it is untenable by normal rules of evidence and logic, once all the facts are taken into consideration. There is only space here to briefly review some of the missing evidence, counter-evidence, and logical contradictions that currently bedevil it. These are examined in greater detail in my book, The Globalization of Addiction and in more recent sources.72

1. Addiction is not primarily or essentially a problem of alcohol and drugs. In fact, alcohol and drug addiction is only a corner of the vast, doleful tapestry of human addictions. This fact contradicts the 1st foundational element.

The Official View of addiction grew out of the 19th century moral panic over alcohol and drugs that became so obsessive that it eventually seemed that people can become addicted to nothing else. However, countless case studies and autobiographical reports have made it impossible to deny that addictions to gambling, eating, sex, wealth, power, love, shopping, Internet games, and innumerable other habits and pursuits can be as prevalent, dangerous, and intractable as drug addictions.73 The first element of the Official View is no longer tenable.

Recent research has drawn public attention to the fact that in some experimental tests used to evaluate the addictivenss of drugs, rats act as if Oreo Cookies are more addicting than cocaine.74 Whereas I have no wish to demonize one of my favorite childhood snacks, it is indeed probable that serious addiction to junk foods and food in general is a much greater problem in many parts of the world, including the United States and Canada, than is addiction to cocaine. The world-wide epidemic of obesity, diabetes, and eating disorders is one important testimonial to the fact that drug addictions are far from the most important corner of the tapestry of human addictions.

Efforts are now being made to stretch the Official View's neurological explanations for alcohol and drug addiction to encompass a few of the other habits and pursuits to which people can become addicted.75 However, these efforts create new logical knots. For example, if a person shows all the psychological and social signs of being addicted to a particular habit that does not affect the brain's function in the way that cocaine and heroin do, is that person considered not addicted within the current Official View? If so, addiction as defined by the Official View contradicts the contemporary case studies and autobiographical reports of people who are severely addicted by any ordinary definition as well as the traditional meaning of the word "addiction" in the English language. If habits are judged to be addictions by whether or not the brain responses that accompany the habit fit the current brain theories of the cause of drug addiction, will they still be considered addictions when the current brain theories are replaced by others? Why are people who become addicted to drugs not automatically addicted to everything else that might augment the supply of dopamine or other neurological sources of

pleasure that their brains lack after they become addicted, according to many current versions of the Official View? Fancy footwork is required to dance out of these and other logical entanglements.

2. The large majority of people who use "addictive drugs" do not become addicted. This contradicts the strong form of the 2nd foundational element.

There are now many documented cases of life-long use of a supposedly "addictive drug" by eminent people whose lives were unblemished by the addictive problems that were inevitably associated with use of these drugs in the Official View.76 Recent epidemiological and biographical studies have shown that people of every level of distinction can use "addictive drugs", including crack cocaine and methamphetamine, for very long periods without becoming addicted.77

Widely publicized research on laboratory animals once appeared to show conclusively that animals given the opportunity to self-inject supposedly addictive drugs were doomed to continue taking these drugs for the rest of their lives, or until they died of hunger or thirst 78. However, beginning with the “Rat Park” research by my colleagues and I, more than three decades ago, the compulsive drug use of these animals has been shown to be an artifact of the radically isolated conditions of the standard experimental situation. Socially housed animals have little trouble resisting “addictive drugs.”79

The evidence that "addictive drugs" can be used safely was not only officially ignored until recently, it was also actively suppressed. The Guardian newspaper on June 13, 2009 reported the overt political suppression of a fourteen-year old World Health Organization study on cocaine, which showed that large numbers of people all over the world used cocaine and crack without addiction, medical harm, or anti-social behavior. This was the largest study of cocaine use ever conducted, with data reported from 22 sites in 19 different countries (I was principle investigator at its Vancouver site). Its existence and suppression are still ignored by most mainstream media and by official sources.80

3. There is no substantial evidence that the minority of drug users who do become addicted have lost their will power and gone “out of control”, and strong reasons to think that they have not. This contradicts the weak form of the 2nd foundational element of the Official View.

Although it is sometimes convenient for street addicts to let police, their parents, or other power figures believe that they have lost their willpower or had their brains "hijacked". But they are not, in fact, drug-automatons. Clinicians and drug counselors who listen carefully in situations of trust know that most people who are addicted to drugs, as well as other habits and pursuits, are far from out of control. Many can explain why they are drawn to a drug addicted lifestyle – despite its enormous dangers and pain – in great detail. They can recount the functions that their addictions serve for them, and explain why socially acceptable life styles are unappealing as well as difficult for them to achieve.81 Recent research on people who are addicted to crack cocaine shows that they often control their inclinations to smoke legally supplied crack in experimental situations where there is only a small reward for doing so.82

I am not suggesting that addiction is simply a matter of "free will". The freewill vs. determinism debate is an irresolvable philosophical dispute not only about drug addiction, but about all human actions.83 However, there is no substantial reason to think that addicted people have less control over their actions than anybody else, even though they often claim that they are out of control – especially when they are explaining themselves to their parents or before a judge.83.1

Some addicted people do sincerely believe at times that they are out of control and cannot comprehend their own behavior, but these beliefs are readily understood in terms of psychological attribution theory,84 Freudian defense mechanisms,85 or a simple desire to avoid

being punished. Furthermore, addicted people are relentlessly taught to believe that they are out of control by the seemingly authoritative rhetoric of the Official View. One current doctrine of the Official View holds that any thoughts addicted people may have of not being out of control are themselves results of a disease process, such a denial, or drug-induced brain damage.86 Many treatment programs and self-help groups aggressively impose the doctrine that drug addicted people must be out of control. Many addicted people accept this doctrine but others cannot bear to attend such groups precisely because they know that it is not true for them.

4. Genetic research provides no substantial evidence of a genetic predisposition to addiction. This contradicts the 3rd foundational element of the Official View.

Addiction, like all other human activities is influenced in various ways by the human genome and by the particular genetic endowments of each individual. Therefore, evidence of some heritability of addiction is not surprising. However, neither the experimental evidence that hundreds of genes can influence the likelihood of addiction in some species and in some situations, nor the reports of substantial heritabilities of alcoholism from human adoption and twin studies comprise substantial evidence of an inherited predisposition to addiction. Genes can effect various risk factors. For example, a gene that affects the sensitivity to a particular drug may make an experimental subject more or less able to tolerate the drug, and thus more or less vulnerable to addiction to it rather than some other habit or pursuit. This does not mean that they are more susceptible to addiction in general. A gene that affects a particular trait, the presence of which dooms a person to agonizing social exclusion, can increase the probability of addictions of all sort in the persons that carry the gene, because social exclusion is a risk factor for addiction. These kinds of indirect genetic effects could have measurable effects on the heritability of addictions in some situations, but they comprise no evidence for a genetic predisposition to addiction, as that idea is normally understood.

Moreover, there are many reasons to question claims of heritability of addiction of as high as 50% that have come from some human adoption and twin studies. These claims have been disputed by many biomedical researchers on a variety of technical grounds.87 For example, there is no way to control for prenatal and perinatal stressors produced by alcoholic parents whose children serve as subjects in adoption studies. Such epigenetic factors could have a major effect on future addiction which would be incorrectly counted as genetic variance, under current experimental designs. In a broader sense, the whole issue of innateness of traits is perplexed because terms like “inherited” and “innate” have different meanings in different cultural and scientific contexts. An appealingly simple statement like 50% of the propensity for drug addiction is innate has so many possible meanings that it is essentially meaningless.88

5. Natural recovery is the most likely outcome of addiction. This contradicts part of the 4th foundational element of the Official View.

Large-scale field studies and clinical studies of "natural recovery" show that about three-quarters of the people who become addicted to a drug in their youth recover, usually without receiving any addiction treatment at all. More than half of them recover by the time they are 30.89 The relapse rate for people who go through treatment is much higher than the relapse rate for those who overcome addiction without treatment.90 (This differential relapse rate does not reflect badly on treatment, since the people who present for treatment are those who did not recovery naturally, and are therefore more entrenched in their addictive lifestyle.)

The basis of natural recovery without treatment is no mystery, since so many cases have been documented. Natural recovery occurs because people establish stronger relations with the community, or find a strong sense of meaning in a new life or religion.[91] Addicted people who do not recover on their own fill self-help meeting rooms and the treatment agencies. A large number of this visible minority of addicted people are refractory to treatment, creating the

illusion of a chronic disease, which has been incorporated into the Official View to explain the marginal success of treatment regimes built on its doctrine.

6. Although their scientific merits are constantly proclaimed in the mainstream literature, neuroscientific explanations of addiction are not convincing, are constantly changing, and are rarely used in diagnosing addiction or in treating it even by their strong supporters. These facts further weaken the 4th foundational element of the Official View. Justin Sharpley has pointed out that "…although addiction is often defined in terms of biological correlates … it is almost always identified in practical settings through evaluation of behavioural and social factors [and] although addiction is generally described etiologically via physiological language, treatment for addictions is generally conducted with the therapeutic goal being the restoration of normal standards of behavior, emotion, and relating, where normality is a subjective phenomenon experienced and understood by individuals in a specific location and temporally limited point in history." 92

Moreover, the concept of disease is so entangled in irresolvable semantic, cultural, and legal snarls in the modern world,92.1 that it is impossible to reach a consensus over whether or not addiction is a disease by logical argument.

7. Despite countless interventions carried out under the rubric of the Official View, the prevalence of addiction has continued to rise throughout the 20th century and into the 21st. This shows the futility of the 5th foundational element and of the Official View as a whole.

The dedication of the practitioners who have carried out the interventions that embody the Official View is unquestioned. However, their interventions, including prevention programs in the schools, twelve-step groups, conventional psychotherapy, cognitive behavioral modification, pharmaceutical interventions, methadone maintenance, and so on, have had limited success in individual cases, and have failed to stem the rising flood of addiction around the world.93 Even private treatment programs that are supported with unlimited funds succeed only in a minority of cases. No matter how wealthy you are, you can't buy your way out of addiction.

When an analysis of an urgent problem does not solve the problem, pragmatism and the history of science dictate that it is time to try a different paradigm. Yet, failure to control addiction is simply explained away in the foundational logic of the Official View. Since the Official View deems addiction a chronic disease, addicted people cannot fully recover. Addicts who have become "clean and sober" through treatment are never more than a single slip away from potentially catastrophic relapses.

In the past, there was some plausible basis for hope in this doctrine. It could be supposed that society could escape the rising tide of addiction when drugs were successfully prohibited or when voluntary drug abstinence became universal. But now it has become obvious that successful drug prohibition and universal abstinence are pipe dreams and that people can become addicted to innumerable other habits and pursuits, like food and sex, that can neither be prohibited nor foresworn. Under the Official View there is no way left to substantially reduce the prevalence of addiction, apart from the long-promised, but still-undelivered pharmacological cure or the enlistment of more and more people into lifelong treatment.

It is because addiction has proven so resistant to treatment interventions that the Official View has characterized it as a chronic (i.e., incurable) disease. But this characterization is not tenable, as explain in point 5 and 6 above.

8. Addiction cannot be understood simply as an affliction of certain individuals with genetic or acquired predispositions to addiction in otherwise well-functioning societies. The most powerful risk factors for addiction are social and cultural rather than genetic or individual. This contradicts the 6th foundational element of the Official View.

Although addiction manifests itself in individual cases, its prevalence differs dramatically between societies. For example, it can be quite rare in a society for centuries, and then become almost universal when a tribal culture is destroyed or a highly developed civilization collapses.94 I have summarized historical evidence of great differences in the prevalence of addiction between societies and within the same society at different times in my book. My book also shows that, when addiction becomes commonplace in a society, people become addicted not only to alcohol and drugs, but also to many other destructive pursuits: gambling, love, food, power, and on and on.95

9. The Official View has drawn its principles more from old moralism than from new scientific discoveries. This contradicts the claim that the Official View is based on dispassionate science and seriously undermines part of the 4th foundational element.

Medieval Christians thought that consorting with demons produced an irreversible loss of willpower, which they called "demon possession". Similarly, the religious temperance movements of the 19th century spoke of "demon rum" as producing an irreversible and reprehensible change in people's behavior, turning them into hopeless "drunkards." Medical experts of the late 19th century held a similarly vehement view of people who were transformed into alcohol and drug addicts, a process that they expressed in now-archaic technical language, including esoteric references to "malfunctioning brain structure", "failure of the higher ethical brain", inheritable "degeneration", and "retrograde evolution".96 Early 20th century moralists thought heroin permanently changed people into despicable "drug fiends". Mainstream biomedical researchers of the 21st century speak of "addictive drugs" as "flipping a switch in the brain" or putting people "beyond will power" or "hijacking the brain",97 thus causing a chronic brain disease that has essentially the same behavioral effects as being possessed by a demon or becoming a drunkard, degenerate, drug fiend, or a failure of the higher ethical brain. Has there really been any fundamental change in thinking over this period?

In the second half of the 20th century, the Official View was largely justified with cutting edge animal research that turns out to have been misinterpreted.[98] Today, the claim that addiction is a brain disease is most often justified with brilliantly colored brain scans99 that non-neuroscientists cannot hope to understand or critique. However, it is well for non-neuroscientists to not be overawed by these colorful displays, partly because some brain imaging technology, notably functional magnetic resonance imaging, has proven unusually vulnerable to error,100 partly because high tech biomedical research is so often shaped by the values of the scientists who perform it and the institutions that fund them,101 and partly because science itself is no more capable of reaching settled certainty than any other human institution.102 Neuroscience and biomedical research have not resolved the ancient mysteries of addiction, although they have contributed some important new facts to the mix.

Despite all the scientific razzle-dazzle in support of the Official View, the idea that drugs cause the chronic disease of addiction by re-wiring the brain is not a new idea, not a scientific discovery, and not a scientific paradigm, although the proponents of the Official View sometimes claim that it is.103 Rather, it is a neurologized form of a view of addiction that has periodically appeared and re-appeared in Western literature for millennia before modern neuroscience existed.104 You do not need a PhD in neuroscience to make up your mind about it. The foundational elements of the Official View can be evaluated with a normal understanding of the rules of evidence and the facts of history. The Official View of addiction, even when bolstered with the most sophisticated brain images, warrants no more uncritical faith than the officially sanctioned models that provided unassailable mathematic proof – until 2008 – that the market for subprime securitized mortgages would not collapse.105

10. Contrary to the child abuse version of the Official View, childhood abuse is not a primary cause of addiction, although it is very important in some individual cases.

Quantitative research reveals a strong relationship between childhood abuse and later addiction to alcohol and drugs, especially for women.106 However, the relationship becomes very much smaller when abused children are compared with children from families that are equally distressed but did not abuse their children.107 In general, sustained family and community dysfunction are far more powerful predictors of addiction than traumatic child abuse alone.

The fact that an addicted person was physically or sexually abused as a child does not necessarily mean that the abuse was the cause of their addiction. Families of abused children typically have other severe problems in addition to child abuse. Several of these other problems, for example drug abuse by parents or spousal abuse, appear to predict later addictive problems as well, or better, than sexual or physical abuse of the child.108

At the other end of the social spectrum, "From Grief to Action" is a group organized by well-off parents of drug addicts who were not abusive to their children and are horrified to discover that many people automatically assume that they must have been, in the context of dramatic presentations of the child abuse version of the Official View.109 As an addiction specialist at a large university, I have worked with severely addicted youths who were children of non-abusive faculty families that were not dysfunctional in any ordinary sense of the term.

Horrific and traumatic as it is, child abuse is simply one of a large number of risk factors that predict addiction. It is neither a primary cause of the global flood of addiction, nor more powerful than many other predictors that can be discerned within the families and communities of people who later become addicted.

11. Contrary to the claims of its advocates, the Official View is intrinsically moralistic and punitive, most obviously because it provides justification for some of the violent excesses of the "War on Drugs".

Because the Official View conceptualizes addiction as a disease rather than a crime, its advocates distance it from moralism and from the "War on Drugs". However, many drug researchers and policy experts have noted that the Official View, as expressed by NIDA, offers tacit support to the War on Drugs on a variety of levels.110

Most contemporary versions of the Official View envision addicted people as sick rather than immoral, thus apparently absolving them of blame for being addicted. However, it follows from the Official View that drug traffickers and producers are more heinous criminals than "drug fiends" were formerly thought to be. They are said to achieve obscene wealth by deliberately inducing a ruinous, incurable disease in their victims.111

As the Official View gained acceptance, the punishments for drug-addicted people became milder in most jurisdictions, while the punishments for traffickers and producers became more severe. The Official View has been used to justify very long sentences for drug traffickers in the United States as well as military destruction of drug-producing peasant farms in South America. This transfer of blame from addicted people to traffickers and far-away farmers may seem to be an improvement from the point of view of addicted people on the street in the developed world – until they find themselves forced by a drug court to chose between coercive treatment or jail or until they realize that they too are traffickers, as it is legally defined. Canada's Controlled Drugs and Substances Act, for example, is written in such a extraordinarily broad way that virtually every street drug user is guilty of the heinous crime of trafficking at some times.112

The most moralistic aspect of the Official View is rarely recognized. Addicted people are said to have had their brains "rewired" or "hijacked" by a drug. Therefore they are not to be blamed for their immoral actions for they are "beyond willpower".113 But what does it actually mean to be beyond willpower? In the plainest language it means that drug addicts are no more to be blamed

for their reprehensible actions than a medieval person whose soul is possessed by a demon or a cinematic zombie whose humanity has been overcome by monomaniacal lust to devour human brains. Addicted people are said to have permanently lost their critical judgment, which would normally mean that they are no longer fully human. Can a more devastating moral judgment than this be passed on a human being? Of course, it can be said that the Official View only casts this judgment on the minority of people who are addicted to drugs. But now that it is becoming recognized, even within the Official View, that people can be addicted to many habits and pursuits other than drugs, the reach of this dehumanizing judgment is potentially monumental and terrifying, not to mention ridiculous.

A Slightly Premature Funeral Eulogy for the Official View

There is no point in being disrespectful of the Official View before this High Court, even though it is intellectually dead and should be put out of its misery. Although its demise will probably prove to be the best for everybody, its positive qualities should always be remembered.

Many talented scientists and practitioners tried valiantly to make a success of the Official View, with the best of intentions. They performed a valuable service by trying to make a plausible set of ideas work, as they might have. The mere fact that the Official View attempted to medicalize and moralize the problem of addiction was not, by itself, a fatal mistake.

Often suffering people find it useful and comforting to think of their own addictions and the addictive lifestyles of their close relatives as a medical disease,114 and why shouldn't they? Medicalizing addiction can be important in helping us to forget the devastating memories of past suffering and regrettable choices in response to that suffering. It may be necessary to control the terrible fear that we have failed to help those we love from making devastating mistakes. Moreover, it is probable that addiction can be understood, ultimately, in neurophysiological as well as psychological and social terms.

Moreover, addiction surely does have important moral implications (even though they are not the drug-zombie moralism of the current Official View). The real moral implications of addiction should never be ignored.

The downfall of the Official View was that its particular medical and moral analysis was narrow, ineffectual, incompatible with basic facts about addiction, internally inconsistent, and historically untenable. Both its origins and its implications were dehumanizing and punitive. It exacerbated its problems by masquerading as an impartial scientific discovery, when it was actually a contrived scientific justification for a destructive set of folk beliefs. It needs to be assassinated because it stands in the way of a rigorous analysis of an extremely important human and social problem, addiction.

But, why did the Official View stand so resolutely in the way of the broad social analysis of addiction and the humane corrective measures that needs to be undertaken? This question will be re-visited at the end of this presentation, after a look at the Dislocation Theory of Addiction.

Dislocation Theory: A Non-Medical, Non-Moralistic, Non-Pharmacological View of Addiction

An alternate view of addiction is coming to the fore. It is as well grounded as the Official View in Western philosophy,115 and is better grounded in social science research,116 public health research,117 the historical record of the waxing and waning prevalence of addiction in various societies over the centuries,118 and evolutionary biology 119. It has little support in contemporary neuroscience research on addiction, which has mostly been funded by agencies that are wedded to the Official View.

I call this alternate view the "Dislocation Theory of Addiction," although other writers expressed very similar views using other words. I am convinced that some version this view will prove far more useful than the Official View in the long run.

Like the Official View, the Dislocation Theory of Addiction is not a product of pure, dispassionate science, but a social construction, with deep roots in past culture and philosophy. Beyond this similarity, however, Dislocation Theory differs from the Official View in almost every way, beginning with who supports it.

The essential ideas of Dislocation Theory are spreading upward, rather than being broadcast downward from officialdom. Its main proponents today are the front-line addiction counselors, social workers, pastoral counselors, and public health advocates who are responding pragmatically to people with serious addiction problems and have not been caught up in the Official View. As well, a great many addicted and recovering people enthusiastically support it because their understanding of their own experience of addiction accords with Dislocation Theory and does not fit will with the Official View.120 Within academia, support for Dislocation Theory draws primarily from the work of social scientists and public health researchers, rather than from the brain scientists and molecular biologists at the top of the academic pecking order.121

In fact, high-ranking members of the media, government, medical, and academic hierarchies may be the last to learn about the dislocation theory, although they may not be able to avoid it much longer in the face of the inefficacy of the Official View. I like to think of the current buzz around the work of the unconventional American neuroscientist Carl Hart and the "High Commendation" given to my own book at the British Medical Association's annual book awards in 2009 as tectonic rumblings of paradigms starting to shift.122 The Dislocation Theory of addiction can only be briefly sketched in this short presentation, along with some gestures toward the supporting evidence as it is collected in my book.

Rather than concentrating on drug and alcohol addictions, Dislocation Theory encompasses the full range of destructive addictions, following definition 1a in the Oxford English Dictionary. Although it does encompass addictions to drugs and alcohol, it gives them no special stature among addictions, because drug and alcohol addictions do not differ from addictions that do not involve alcohol or drugs either in their psychological dynamics or in their potential for harm.123 There are many indications that addictions that do not involve alcohol or drugs are more prevalent than addictions to alcohol and drugs.124

Dislocation Theory does not view addiction as either a medical condition or a moral failure. Rather, it depicts addiction as a way of adapting to increasingly dominant and onerous aspects of the modern world – in particular, social fragmentation and individual dislocation. It is usually easy to understand the adaptive functions that addiction serves a particular addicted person. No pathological transformation of the brain, the will, the unconscious needs to be imagined.

Evolutionary biologists and psychologists recognize that many forms of adaptation can become excessive under certain conditions, causing great harm to individuals and populations.125 If the Dislocation Theory is correct, addiction is one adaptation that has become excessive in many individuals in the modern age. We are in the midst of a flood of excessive addiction that steadily grows wider – because more and more habits and pursuits are being used addictively – and deeper – because more and more people are addicted. Intervention is urgently needed.

In Fig. 1, below, I have centered a description of the Dislocation Theory of Addiction around the image of an Oreo cookie, even though a needle or a street scene in the downtown urban core would be more conventional images to symbolize addiction than a cookie. I use this sugary graphic to emphasize that the Dislocation Theory is not a theory of drug addiction, but a theory of countless diverse forms of addiction, and that it is quite likely that addiction to sugary foods, with its consequences of epidemic obesity and diabetes in some countries, is a larger problem in western society now than addiction to injectable drugs.

By contrast with the Official View, Dislocation Theory does not focus on single individuals, but on the societal causes of the globalized flood of addiction in the modern era. Of course each addicted individual has a unique story to tell, but Dislocation Theory provides a societal framework within which the struggles of addicted individuals in general can be more deeply understood.

Fragmentation

Dislocation Theory starts with the historical fact that societies everywhere have become fragmented in the last five centuries (See Fig. 1, top quadrant). From the time of Christopher Columbus onward, large scale colonization by western powers has crushed defenseless societies around the globe by conquest, disease, economic exploitation, religious domination, and devastation of local ecosystems.126 Within the western countries themselves, agricultural and industrial revolutions began to overrun and crush stable agrarian societies before 1600.127 More recently, dazzling new technologies and corporate strategies are invading and re-fragmenting local urban and rural societies that were emerging from the ruins of traditional cultures. 128

Beneath the repeated passes of the steamroller of modernity, nuclear families have been crushed, extended families have been scattered, traditional religions have been forgotten or transformed into shallow caricatures, cultures and ethnic groups have lost cohesion, and ancient traditions have been pulverized. The social fragmentation of society that began in the early modern era continues and increases now amidst the globalization of free-market capitalism, neoliberalism, corporate culture, ecological devastation, "development" imposed on the third world, and repeated financial crises.129

I think that the fragmentation of modern world society is best understood as a fundamental result of the influence of the economic philosophy of multinational, free market capitalism and neoliberalism. Others understand the fundamental cause in different, although overlapping, ways, such as the domination of the modern world by scientific and industrial thinking rather than intuitive modes of thought, and by the thought processes of the right hemisphere of the brain dominating those of the left130 or in the broadest sense of being the natural consequence of modernity in general.131 However, only the fact the modern age fragments traditional society is essential to the Dislocation Theory of Addiction, not pinning down the reason why this fragmentation is occurring.

Modern fragmentation is an integral part of an emerging world civilization that has bestowed enormous increases in industrial productivity and technical creativity of the human species, and has made it possible for the earth to support a human population of several billion people. However, this bourgeoning world civilization is obviously a mixed blessing. Whether it can be sustained remains to be seen, but, if it can, it will clearly require some major improvements to make it salubrious for human beings and endurable for the biosphere that we inhabit.

Figure 1. The Dislocation Theory of Addiction

Mass Dislocation

Figure 1 (right quadrant) shows mass dislocation as both the psychological consequence of societal fragmentation and the precursor to mass addiction. Following Karl Polanyi, I use the word "dislocation" to describe the effect of social fragmentation on individuals. Dislocation refers to the rupture of enduring and sustaining connections between individuals and their families, friends, societies, livelihoods, rituals, traditions, nations, and deities. This plethora of dislocations has real benefits for individuals, leading to unprecedented levels of personal

freedom and opportunity for individual creativity and self-actualization. However, it also has a high price, because dislocation undermines the normal bases of human identity, purpose, belonging, and meaning, leaving a bleak and empty experience of the world.132

Dislocation can do its destructive work at every stage of the human life-cycle, beginning before birth.133 Intrauterine consequences of maternal stress in a fragmented society can make a child socially backwards in later years.134 Lack of stable attachment in infancy, due to fragmentation of families (or any other reason) can make a child insecure and unlikely to achieve satisfactory integration in society later in life.135 Lack of stable housing in volatile real estate markets dominated by speculators can make settled family and neighbourhood life difficult or impossible for people, even those experienced little stress early in life.136 Existence in a hypocritical, corrupt political system run by politicians who shamelessly serve financial and industrial megacorporations leads to profound apathy in adults.137 Lack of family and neighbourhood support can leave elderly people in solitude and despair.138

Dwelling on the impact of dislocation is more than expressing nostalgia for the “good old days”. The modern era is not more evil than its predecessors but, like every era, it brings both new opportunities and new problems to be solved. Mass dislocation is one of the new problems that modernity has brought. Of course, individuals can be severely dislocated by events that have nothing to do with modernity, including natural catastrophes like earthquakes and tsunamis139 and idiosyncratic genetic and epigenetic events. Nonetheless, modernity itself is the dominant source of dislocation in the modern era, and many modern thinkers argue that dislocation is now inescapable and almost universal.139.1

The word "dislocation" in this context refers to much more than geographic displacement. Dislocation is a kind of suffering that afflicts people who stay home in fragmenting societies as much as people who have been driven continents away from their roots.

“Dislocation” also refers to much more than material poverty or income inequality. Income inequality is indeed a horrific economic reality of today’s world.140 However, dislocation is the most fundamental psychological side-effect of the current economic system141 and the worst contributor of modernity to the problem of addiction.142 Dislocated people become demoralized, degraded, depressed and often addicted, even if they are extremely wealthy.143 No amount of money can restore their well-being, although natural recovery often occurs.144

Severe, prolonged dislocation is unbearable. It precipitates anguish, suicide, depression, disorientation, and domestic violence.145 This is why dislocation has been imposed as a dreaded punishment (in the form of exile, ostracism, excommunication, solitary confinement, etc.) from ancient times to the present, and why social isolation remains an essential component of the contemporary technology of torture.146

Flood of Addictions

Just as high levels of individual dislocation follow high levels of social fragmentation, a flood of addiction follows high levels of dislocation (see Fig. 1, bottom quadrant). A wealth of historical, clinical, and quantitative evidence shows that addiction provides many dislocated people with some much needed relief and compensation for their bleak existence.147 Because addiction can become an intense and even overwhelming involvement, addiction can provide a partial substitute for people who are severely dislocated and isolated. Of course severe addiction is not the kind of involvement that addicted people anticipated or wanted for themselves, or that their societies anticipated for them, but it at least provides them with some meager sense of identity, purpose, belonging, and meaning. Without their addictions, many people would have terrifyingly little reason to live. For example, when "junkies" wake up, they at least know who they are and what they must accomplish that day, and they can identify themselves with a tragic but exotic junkie mystique,148 to make their existence seem less miserable than it is. For

another example, people who are addicted to horserace gambling have not found anything more important in their lives that incessantly exchanging information and hunches within a colourful subculture of characters at the track, with a mythology of famous gamblers and legendary horses of the past and an imagined future of fabulous success.149 People who use drugs moderately or go to the track recreationally have other fulfilling ways to spend their energies most of the time.

The adaptive function of addiction is sometimes obscured. Many addicted people deny that they live in a state of dislocation, because they feel ashamed of their inability to find lasting friends and find a mate and a meaningful occupation, even though they live in a fragmented society that makes establishing these links problematic for everybody. They may internalize their dislocation as a personal failure and be only dimly aware of the adaptive function of their addiction. Parents of addicted people may see their children's addictions as inexplicable habit caused by addictive drugs or by genetic predispositions or brain dysfunction because acknowledging the adaptive functions that it actually serves would require facing up to the fragmented nature of the family and neighbourhood they have been able to provide for their children as they grew up. The Official View authoritatively proclaims addiction a chronic disease rather than an adaptation with all the force of scientific authority and media dramatization.

Thus, far from being a disease, the modern flood of addiction is a way that many individuals adapt to dislocation, and, more generally, a way of adapting to the social fragmentation of modernity, which is the root cause of much of today's dislocation. It is because addiction is adaptive that people who cannot find better ways of relieving their dislocation cling to their addictions –from minor ones to very harmful ones – with such reckless desperation.

Can a lifestyle that is harmful to many people be considered adaptive? Yes, of course. Behaviors evolve in species because they are more beneficial than the alternative traits on the average, not because they are always beneficial.150 When behaviours evolve as a response to a particular kind of stressor, it is to be expected that the trait serves most of the individuals who behave that way by enhancing their likelihoods of survival and reproduction (or at least that it did so at the time it evolved). This does not mean that some individuals will not be harmed by the same behavior.151 The fact that most people "recover" from addiction without need for treatment, strongly suggests that it is better considered an adaptation than a chronic disease.152

Consequences of Addiction: Further Fragmentation

Besides enabling desperate people to endure chronic dislocation, addictions contribute to the fragmentation of modern society and the dislocation that flows from it in many ways. These include children who cannot grow up to be productive citizens because they are lost in the world of video games and social media, thieving street addicts who wreak havoc on their neighbourhoods, wasteful consumers and shopaholics who devour the environment, insatiably wealth addicted CEOs who destroy the environment so that consumers can devour it in the form of consumer goods, and on and on. Moreover, when people's addictions last too long or become too overwhelming, their personal adaptive functions go awry. Prolonged addictions multiply the addicted person's own dislocation by eroding their health, as well as by further fragmenting their own families, communities, and societies. In these ways, addiction completes the positive feedback loop and perpetuates itself.

Recovery

Although this self-perpetuating cycle will be difficult to break on a global level, many individuals do overcome their personal addictions. Because addiction is unlikely to be a successful adaptation over a long term, many people eventually find better ways to live, either by reducing their dislocation, by changing to a less harmful addiction, or by adopting a "recovery" oriented lifestyle. The fact of widespread natural recovery that perplexes the Official View fits

comfortably with the Dislocation Theory. On the other hand, some people can neither reduce their dislocation nor find better ways to cope with it than ruinous addictions. Their addictions are intractable to either treatment or punishment, although they can sometimes be managed adequately by administrative measures and/or participation in self-help groups.

Although Dislocation Theory puts primary emphasis on social antecedents of addiction, it recognizes the individual suffering and courage of individuals struggling to overcome or manage their addictions. It deepens the understanding of individual struggles and suffering by showing that the more fragmented a society is, the more obstacles will emerge to impede dislocated individuals from winning these struggles and the more likely that a person will lapse, or relapse, into addiction.

Heredity

Dislocation Theory also deepens the understanding of genetic factors in addiction. Some people are genetically less suited than others to their cultures or subcultures and are, therefore, more likely to become first dislocated and then addicted. As well, some people are genetically intolerant of alcohol consumption and less likely to become addicted to it, rather than to some other behavior. The same kind of tolerance and intolerance would probably apply to many of the habits and pursuits to which people might become addicted. The available data on heritability of addiction, with several hundred genes showing some statistical relationship to one addictive habit or another, in one situation or another, is best understood in these indirect ways, rather than by positing an inherited "predisposition to addiction".

Dislocation Theory in Modern Society

Although the connection between dislocation and addiction is easily demonstrated in historical studies of aboriginal people and agrarian societies, it is by no means confined to pre-modern settings. Throughout the developed countries, dislocation plays havoc with delicate ties linking all classes of people to society, nature, and spiritual values. Although globalized free-market society produces both winners and losers as gauged by economic success, it ultimately produces only losers when dislocation is the measure. Karl Polanyi perceived the growing dislocation among the rich as well as the poor from the earliest beginnings of the free-market system:

… the most obvious effect of the new institutional system was the destruction of the traditional character of settled populations and their transmutation into a new type of people, migratory, nomadic, lacking in self-respect and discipline – crude, callous beings of whom both labourer and capitalist were an example.153

As the basic markets in goods, labor, and capital become securely established in the globalizing world economy, new kinds of international markets for services, intellectual property,154 popular culture,155 and intimate relations156 have further amplified dislocation at every social level.157 As these markets continue their encroachment into social life, rich and poor people alike are finding themselves not only commodified but also capitalized. Formerly commodified as "labor", they are now capitalized as "human resources". People's friends can be calculated along with other “assets” as "social capital".158 The tenor of their inner life can be calculated as "emotional capital".159

As markets extend their reach into society, governments of rich countries employ carefully engineered techniques to keep people buying, selling, working, borrowing, lending, consuming, moving, learning, immigrating, reproducing, and saving in ways that seem to maximally benefit the markets, increase the GDP, and aid the latest economic "recovery".160 New methods of engineering economic behavior are developing with the burgeoning social media.161 All this economic engineering invisibly undermines what remains of traditional culture as well as new traditions that might otherwise spontaneously arise, thereby further increasing dislocation and accelerating the cycle of addiction.

Ultimately, modernity and free-market economics not only destabilize people's personal and social lives in the interests of the economy, they also destabilize the economy itself. For rich and poor alike, in great cities and small towns,162 people's jobs disappear on short notice,163 life-long employees' pensions disappear,164 families and communities live with financial uncertainty, and people routinely change neighborhoods, occupations, co-workers, technical skills, status, reference groups, languages, nationalities, therapists, spiritual beliefs, corporate loyalties, and ideologies as their lives progress.165 Deregulation of finance capital in the 1980s enormously inflated the global free market in stocks, bonds, and debt obligations. Unregulated speculation in these global markets has brought devastating volatility and long-term uncertainty into local and national economies.166 The cataclysmic, worldwide economic emergency that began in 2008 multiplied dislocation because many people who lost their jobs, homes, savings, or pensions found they could no longer trust the institutions that previously been revered symbols of economic security, especially governments, banks and regulatory agencies.

Contemporary forms of dislocation – even among the affluent – have been brilliantly analyzed by many contemporary authors. For example, the French philosopher Dany-Robert Dufour has shown how dislocation of prosperous citizens in wealthy countries has accelerated between World War II and the present because of the increasing dominance of globalizing market economy.167

Conclusions and Speculations

A simple way to summarize the paradigmatic difference between the Official View and the Dislocation Theory of addiction is to compare the six foundational elements of the Official View and its scientific faith and medical promise with the way those same issues are understood within Dislocation Theory (See Table 2).

Table 2. Comparison of the Official View of Addiction
and the Dislocation Theory of Addiction

Elements	Official View	Dislocation Theory
1	Addiction is fundamentally a problem of drug or alcohol consumption.	People can be addicted to innumerable habits and pursuits. Addiction has no special connection with drugs and alcohol.
2	"Addictive drugs" have the power to transform some or all of the people who use them into addicts, overcoming their normal will power.	People who are living as addicts are exercising as much willpower as anybody else.
3	A major portion of people's vulnerability to addiction comes from inherited genetic predispositions.	Various genes have measurable effects on the likelihood of addiction in various situations. None of the known genetic effects comprise a predisposition to addiction
4	People who become addicted suffer from a chronic, relapsing brain disease, which is essentially incurable.	Rather than a disease or a moral failing, addiction is a way that some people adapt to severe dislocation. People often change their ways of adapting during their lifetimes.
5	Although people with the disease of addiction cannot be cured, they can be successfully managed through professional treatment or membership in self-help groups.	Most addicted people get over their addictions on their own. Professional treatment and self-help groups are only marginally effective in helping those that do not.
6	Addiction is an illness of particular individuals within otherwise well-functioning societies.	In modern times, most addiction arises because of the dislocation caused by fragmented societies. In fragmented societies, addiction leaves few people untouched.
Scientific Faith	Commitment to dispassionate science guarantees that the foundational elements of the Official View are correct and certain.	Science is only one of the ways of

investigating addiction. History, philosophy, economics, and social science are equally important. Advocates of the Official View have used the prestige of science to create an illusion of correctness and certainty.

Medical Promise Medical research will soon find an effective treatment for addiction, which will probably be pharmacological. Medical treatment cannot substantially reduce addiction, because addiction is best understood as a form of adaptation, rather than a disease. Subduing the current flood of addiction will require social change.

All six foundational elements of the Official View are untenable, its scientific faith is simplistic, and its promise of a pharmacological cure of addiction is expiring -- like any long-repeated promise that has not been kept. Moreover, the War on Drugs that the Official View tacitly supports is being exposed as futile and cruel. Addiction is more accurately, usefully, and compassionately conceptualized by Dislocation Theory. It is time for a paradigm shift.

The original medicalization, moralization, and pharmacologization of addiction in the 19th century was much more than an attempt to solve a pressing social problem by enlisting the methods of medical science and moral exhortation. Medicalization, moralization, and pharmacologization of addiction served the larger function of reassuring an increasingly nervous population that the brave new world of 19th century modernity was secure and that the growing number of addicted people who could not care for themselves were evil or diseased aliens – lepers – who had been enslaved by addictive drugs.168 With the growing malaise of addiction conceptually limited to drugs, there remained no possibility of seeing the rising tide of addiction as an understandable way of adapting to an impoverished social milieu. The possibility that successful intervention would have to come more from societal change than from individual treatment or punishment became unthinkable. At the same time, major benefits accrued to the nascent treatment and pharmaceutical industries that devoted themselves to tirelessly inventing profitable cures for the non-existent disease.

Today's Official View continues to serve the same obfuscatory function. It narrows addiction, first, by focusing attention on the need for individual treatment or correction rather than societal reorganization, while ignoring the obvious psychological devastation caused by the social fragmentation of the modern world. The Official View further narrows addiction by focusing on the addictive problems of drug and alcohol users,169 while distracting attention from the full range of addiction in contemporary culture. Modern society's highly complex addictive problems have been thus largely confined by the Official View to a relatively small group of addicted individuals (stigmatized as morally irresponsible drug users with a brain disease), drug traffickers (stigmatized as morally depraved drug merchants and gang members), third-world farmers (stigmatized as ignorant peasants whose lack of compliance means that their crops may be freely destroyed), and small time growers and laboratories in developed countries (stigmatized as members of motorcycle gangs and organized crime families).

Grossly oversimplifying a complex social phenomenon has kept the spotlight always turned away from a global world economy that mass-produces dislocation and, consequently, addiction. The global economy also mass-produces a vast, glittering array of products for addicted people to purchase and propagates media images that make all this seem right and proper. The modern status quo is shielded by the Official View from the critical analysis that the current global flood of addiction would otherwise provoke. It is further entrenched in the official mind because our public officials and institutions are influenced and rewarded by immensely powerful corporate and geopolitical interests that feed on the status quo.170 It is entrenched in the corporate mind because it is good for business.

The Official View is appealing to private individuals because it spares us all the anguish of facing excruciating social and psychological realities. For example, it spares relatives of addicted children from having to examine their own family contributions to the problem too closely. It spares those who delight in libertarian freedoms that defy tradition from having to enquire about the costs of these liberties for society as a whole.

However, the Official View is untenable and will lose its hypnotic power, sooner or later. Paradigms do shift and ideas like the Dislocation Theory stand at the ready for when the Official View does. Only then can the difficult issues that the Official View obscures be fully confronted. The first issue that will then require attention is at what point can the positive feedback loop that perpetuates addiction in the modern world best be interrupted. I cannot undertake that issue in this paper, but I have addressed it elsewhere at length.171

Although Dislocation Theory finds little overt support in the current medical and biological literature on addiction, it is fully compatible with current clinical practice and biological science. The concept that addiction is an adaptation to dislocation is partly based on extensive published clinical observations from decades of practice. Many modern practitioners use ideas that are part of the Dislocation Theory in their clinical practice with addicted people. Dislocation theory is grounded in the evolutionary concept of adaptation. It could also be grounded in modern neuroscience although virtually all funding for neuroscience research on addiction now goes to scientists committed to the Official View. There are many directions that neuroscience research on Dislocation Theory could take. It could be based on recent advances in analysing cortical hemisphericity, as conceptualized by Iain McGilchrist172. Lucy Brown has proposed that the neurological basis of addiction be an extension of the normal neurological roots of attachment, romantic love, and sex.173 Whatever their roots, there is every reason to suppose that the adaptive patterns that comprise addiction have homologues in other species and that they have determinable neurological and genetic bases.

Current clinical treatment and harm reduction may be understood more fruitfully within a paradigm for understanding addiction that is founded on Dislocation Theory. For example, as the Official View has opened up to methadone maintenance, it has construed it as a pharmaceutical treatment for heroin addiction.174 However, the claim that administering an opiate should constitute treatment for addiction to another opiate is more based on official proclamation than logic.

Dislocation Theory does not envision dispensing drugs as treatment, but as a harm reduction measure. Drug addiction is neither a sin nor a disease, but a way of adapting to difficult circumstances that is socially unacceptable. Harm reduction is a way or reducing the risks for people who are severely addicted, including by the provision of safe, affordable opiate drugs to opiate addicts. But the essence of harm reduction practice is not dispensing methadone, needles, condoms, or crack pipes. These tasks can be accomplished by specialized vending machines. The essence of harm reduction is establishing ongoing, respectful relationships between addicted people and caring service providers which increase the likelihood of an addicted person finding a more socially acceptable and productive way of living.175 The harm reduction movement may be expected to play a much fuller and more vital role when understood in terms of Dislocation Theory.

While recognizing the importance of treatment, harm reduction, and of compassionate forms of policing, Dislocation Theory of course puts the greatest emphasis on dislocation as a root cause of addiction and on fundamental social change as the most important means of bringing addiction under control. However, I think its implications are wider still. The Dislocation Theory of addiction is one of the windows through which we can view the widespread psychological malaise and the underlying structural problems of a tottering civilization. Viewed in this way,

addiction is not only a scourge for modern humanity, but also a crucially important teacher. Unfortunately, its lessons have been obscured by the stultifying presence of the Official View. I see no solution for this problem short of a genuine paradigm shift, which, I submit, is the scholarly equivalent of assassination of the Official View.

Endnotes

[1] The Latin form of the word “addiction” was used both in a legal and a psychological sense. In Roman law, for example, a servus addictus was a person legally given over as a bond slave to his creditor. However, the verb addicere could also be used outside of the judicial context to describe strong devotion, which could be either destructive or admirable. The admirable sense of the word is illustrated in the phrases, senatus, cui me semper addixi, "the senate to which I am always devoted (or addicted)", and agros omnes addixit deae, "he devoted (addicted) the fields entirely to the goddess" (Lewis, C.T. and Short, C. A Latin Dictionary: Founded on Andrews' Edition of Freund's Latin Dictionary. (Oxford: Oxford University Press, 1879).

[2] The Oxford English Dictionary is the authoritative dictionary of the English language. An enormous work, it required over half a century to assemble and publish. The original edition came out in separate "fascicules" that were published at different times in the late 19th century. The wording of the traditional definition of addiction is the same in all editions including the online edition launched in 2000 that was current until late in 2010.

[3] Michel, J.-B. et al. (2011, January 14). Quantitative analysis of culture using millions of digitized books. Science, 331(6014), 176-182.

[4] Shakespeare, W. (ca. 1599). The Life of King Henry the Fifth. In The Complete Plays of William Shakespeare. New York, NY: Chatham River Press, 1984, pp. 429-457, Act I: Scene I.

[5] Shakespeare, W. (ca. 1599). The Life of King Henry the Fifth. In The Complete Plays of William Shakespeare. New York, NY: Chatham River Press, 1984, pp. 429-457,Act I: Scene II; Act II: Scene IV.

[6] I Corinthians 16:15-16, Authorized (King James) Version of The Bible (1611, italics in original).

[7] I Corinthians 16:15-16, New Living Translation of The Bible (1996); I Corinthians 16:15-16, New American Bible (2002).

[8] Hickman, T.A. (2007). The secret leprosy of modern days: Narcotic addiction and the cultural crisis in the United States, 1870-1920. Amherst, MA: University of Massachusetts Press. It is sometimes argued that the idea of addiction was a new social construction or even a "fetish" that grew out of the economic tensions of the 19th century (See Levine, H.G. (1978). The Discovery of Addiction: Changing Conceptions of Habitual Drunkenness in America. Journal of Studies on Alcohol 39, 143-174; Reith, G. (2004). Consumption and its Discontents: Addiction, Identity and the Problems of Freedom. British Journal of Sociology, 55, 283-300.) However, some instances of the use of the word "addiction" in accordance with traditional usage to describe destructive lifestyles centered on alcohol can be found much earlier than the 19th century (Warner, J. (1994). Resolv'd to Drink No More': Addiction as a Pre-Industrial Construct. Journal of Studies on Alcohol, 55, 685-691. It is the narrowing of the word to describe only compulsive use of alcohol and drugs, in a medical and/or moral framework, that was new in the 19th century.

[9] Berridge, V. and Edwards, G. (1987). Opium and the People: Opiate Use in Nineteenth Century England. London, UK: Allan Lane.

[10] Berridge, V. and Edwards, G. (1987). Opium and the People: Opiate Use in Nineteenth Century England. London, UK: Allan Lane, pp. xxiv-xxvii, chaps. 3, 4.

[11] Berridge, V. and Edwards, G. (1987). Opium and the People: Opiate Use in Nineteenth Century England. London, UK: Allan Lane, pp. 51-54.

[12] Berridge, V. and Edwards, G. (1987). Opium and the People: Opiate Use in Nineteenth Century England. London, UK: Allan Lane, pp. xxvii.

[13] Paradoxically, the last two centuries, in which the term "addiction" became muddled, saw the emergence of clear, accepted understandings of many diseases that had had confused meanings for millennia: smallpox, tuberculosis, cholera, appendicitis, and so on. Along with clear definitions of these problems came accepted causal theories and effective means of control. Starr, P. (1982). The Social Transformation of American Medicine: The Rise of a Sovereign Profession and the Making of a Vast Industry. New York: Basic Books. See also Berridge, V. and Edwards, G. (1987). Opium and the People: Opiate Use in Nineteenth Century England. London, UK: Allan Lane, chaps. 10-13.

[14] Hickman, T.A. (2007). The secret leprosy of modern days: Narcotic addiction and the cultural crisis in the United States, 1870-1920. Amherst, MA: University of Massachusetts Press.

[15] Hickman, T.A. (2007). The secret leprosy of modern days: Narcotic addiction and the cultural crisis in the United States, 1870-1920. Amherst, MA: University of Massachusetts Press. (pp. 7-10); Reinarman, C. (2005). Addiction as accomplishment: The discursive construction of disease. Addiction Research and Theory, 13, 307-320.

[16] As historian Nancy Campbell puts it, "The disease concept of addiction goes back to a cultural emphasis on abstinence and temperance that emerged as early as the 1780s." Campbell, N.D. (2007). Discovering addiction: The science and politics of substance abuse research. Ann Arbor, MI: University of Michigan Press, 2007, p. 13; see also Hickman, T.A. (2007). The secret leprosy of modern days: Narcotic addiction and the cultural crisis in the United States, 1870-1920. Amherst, MA: University of Massachusetts Press, p. 41.

[17] Berridge, V. and Edwards, G. (1987). Opium and the People: Opiate Use in Nineteenth Century England. London, UK: Allan Lane, pp. 154-155; White, W.L. (1998). Slaying the Dragon: The history of alcoholism treatment and recovery in America. Bloomington, IL: Chestnut Health Systems. (pp. 21-78)

[18] "Spirits" were distilled alcohol, in the form of whisky, gin, brandy, etc. At first, the temperance movement regarded wine and beer as acceptable alternatives to spirits, but this changed over the decades.

[19] For documentation of the growth of alcohol and opium consumption in Europe and America in the 18th and 19th centuries, see Alexander, B.K. (2010). The Globalization of Addiction: A Study in Poverty of the Spirit. Oxford, UK: Oxford University Press, paperback edition, pp. 129-131). For a description of the degraded existence of some 19th century alcoholics, see Charles Dickens, writing as a reporter under the pseudonym Boz, see Dickens, C. (1994). "The Drunkard's Death," in M. Slater (Ed.), The Dent Uniform Edition of Dickens' Journalism: Sketches by Boz and Other Early Papers, 1833 – 1835. London, UK: J.M. Dent. Jessica Warner has described the alcohol consumption of the British Gin Craze, which began in the 18th century. (See Warner, J. (2002). Craze: Gin and Debauchery in an Age of Reason. New York, NY: Four Walls Eight Windows. Some of today's descriptions of alcoholics are strikingly similar to the descriptions of Dickens and Warner from an earlier age. (See, for example, Crozier, L. and Lane, P. (Eds.), (2001). Addicted: Notes from the Belly of the Beast. Vancouver, BC: Greystone Books.

[20] Aaron, P. and Musto, D. (1981). Temperance and Prohibition in America: A Historical Overview, in M.H. Moore and D.R. Gerstein (Eds.), Alcohol and Public Policy: Beyond the Shadow of Prohibition. Washington, DC: National Academy Press, pp. 125-181 (see especially pp. 138-139); Berridge, V. and Edwards, G. (1987). Opium and the People: Opiate Use in Nineteenth Century England. London, UK: Allan Lane, p. 160.

[21] Berridge, V. and Edwards, G. (1987). Opium and the People: Opiate Use in Nineteenth Century England. London, UK: Allan Lane, p. 154.

[22] Aaron, P. and Musto, D. (1981). Temperance and Prohibition in America: A Historical Overview, in M.H. Moore and D.R. Gerstein (Eds.), Alcohol and Public Policy: Beyond the Shadow of Prohibition. Washington, DC: National Academy Press, pp. 125-181.

[23] Silver, G. and Aldrich, M. (1979). The Dope Chronicles: 1850 – 1950. New York, NY: Harper & Row; Murphy, E. (1973). The Black Candle. Toronto, ON: Coles. (Original work published 1922)..

[24] Murphy, E. (1973). The Black Candle. Toronto, ON: Coles. (Original work published 1922).; Carstairs, C. (2006). Jailed for Possession: Illegal Drug Use, Regulation, and Power in Canada, 1920 – 1961. Toronto, ON: University of Toronto Press, chaps. 1-2.

[25] Alexander, B.K. (2010). The Globalization of Addiction: A Study in Poverty of the Spirit. Oxford, UK: Oxford University Press, paperback edition, chap. 4; Carstairs, C. (2006). Jailed for Possession: Illegal Drug Use, Regulation, and Power in Canada, 1920 – 1961. Toronto, ON: University of Toronto Press., chap. 3.

[26] Reinarman, C and Levine, H.G. (1997). Crack in America: Demon Drugs and Social Justice. Berkeley, CA: University of California Press, chap. 1.

[27] Armstrong, J. (2004, January 10). Crystal Meth is Sweeping BC: Police, Youth Workers and Health Authorities are Alarmed and Afraid: Toxic Drug Causes Lasting Damage to Brain. The Globe and Mail, pp. A1, A7; Smith, G. (2004, December 4). Swinging at the Shadows: The Curse of Crystal Meth. The Globe and Mail, pp. A1, A7, A8; Hawthorn, T. (2005, May 4). Nothing Funny About Crystal Meth: Drug is Becoming a Scourge in Victoria. The Globe and Mail, pp. S1, S3; Sheff, D. (2009). Beautiful Boy: A Father's Journey Through his Son's Addiction. Boston, MA: Mariner Books.

[28] Blackwell, T. (2011, 12 November). The selling of oxycontin. Retrieved 14 Nov. 2011 from http://news.nationalpost.com/2011/11/12/the-selling-of-oxycontin/

[29] Italics and uppercase in original. This 1933 definition is reworded in the 2010 3rd edition of the OED, but its essential features remain the same.

[30]Alcohol was a drug according to definition 1.b. of "drug" in the OED.

[31] The term "drug-addiction" in this moralistic sense does not appear in the 1884 fascicule or in the main text of the 1928 edition. A form of it does appear in the 1933 Supplement.

[32] Berridge, V. and Edwards, G. (1987). Opium and the People: Opiate Use in Nineteenth Century England. London, UK: Allan Lane, chap. 13; White, W.L. (1998). Slaying the dragon: The history of addiction treatment and recovery in America. Bloomington, IL: Chestnut Health Systems. (pp. 21-114).

[33] In discussing addiction research in the 20th century United States, Nancy Campbell wrote, "Although neurophysiology and pharmacology dominated twentieth-century addiction research, vestiges of psychoanalysis stuck in scientific [discourse] as well as popular constructions of the the concept of addiction or drug dependence…Such accounts shaded into older moralistic constructs of alcoholism and addiction as "diseases of the will"…" (Campbell, N.D., 2007, Discovering addiction: The science and politics of substance abuse research. Ann Arbor, MI: University of Michigan Press, p. 28).

[34] Campbell, N.D. (2007). Discovering addiction: The science and politics of substance abuse research. Ann Arbor, MI: University of Michigan Press, p. 19).

[35] Campbell, N.D. (2007). Discovering addiction: The science and politics of substance abuse research. Ann Arbor, MI: University of Michigan Press, p. 169. Budney, A.J., Higgins, S.T., Mercer, D.E., Carpenter, G. A Community Reinforcement Approach: Treating Cocaine Addiction. Therapy Manuals for Drug Abuse, Manual 2. Retrieved 2 April 2010 from http://www.drugabuse.gov/TXManuals/cra/CRA2.html

[36] Alexander, B.K., Dawes, G.A., van de Wijngaart, G.F., Ossebaard, H.C. and Maraun, M.D. (1997). The “Temperance Mentality”: A Comparison of University Students in Seven Countries. Journal of Drug Issues, 28, 265-282; Russell, C., Davies, J.B., and Hunter, S.C. (2011). Predictors of Addiction Treatment Providers' Beliefs in the Disease and Choice Models of Addiction. Journal of Substance Abuse Treatment, 40, 150-164 (See especially discussion section).

[37] The book is Hoffman, J. and Froemke, S. (2007). Addiction: Why Can't They Just Stop? New York, NY: Rodale. The national publicity campaign, the film series, the website, and the series of town hall meetings are described in http://www.addictionaction.org/about/about-the-project.html (accessed June 28, 2010).

[38] These experts are listed by Hoffman, J. and Froemke, S. (2007). Addiction: Why Can't They Just Stop? New York, NY: Rodale, pp. 239-241.

[39] These include Susan Cheever, Katherine Ketcham, and David Sheff. See Hoffman, J. and Froemke, S. (2007). Addiction: Why Can't They Just Stop? New York, NY: Rodale, pp. 238-239.

[40] The Robert Woods Johnson foundation is funded by the fortune accumulated by the Johnson and Johnson Corporation, a vast consortium that comprises the eighth largest pharmaceutical company in the world along with its other holdings in the biomedical field.

[41] For example, National Institute of Drug Abuse (2010) Drugs, Brains, and Behavior: The Science of Drug Addiction. Washington, DC: National Institute of Drug Abuse. NIH Pub. No. 10-5605). Retrieved March 29 2014 from http://www.drugabuse.gov/sites/default/files/sciofaddiction.pdf

[42] Robinson, T.E. & Berridge, K.C. (2008) The incentive sensitization theory of addiction: some current issues. Philosophical Transactions of the Royal Society B, 363, 3137-3146; Koob, G.F. (2009). Neurological substrates for the

dark side of compulsivity in addiction. Neuropharmacology, 56, 18–31; Sinha, R. & Shaham, Y. & Heilig, M. (2011) Translational and reverse translational research on the role of stress in drug craving and relapse. Psychopharmacology, 218, 69–82; Marhe, R., Luijten, M., & Franken, H.A. (2014, January 10). The clinical relevance of neurocognitive measures in addiction. Frontiers in Psychiatry, 4 (Article 185), 1-7; The editors of nature. (February 5 2014). Animal farm: Europe's policy-makers must not buy animal-rights activists' arguments that addiction is a social, rather than a medical, problem. Nature, 506 (7486). Retrieved April 1 2014 fromwww.nature.com/news/animal-farm-1.14660

[43] Sheff, D. (2009). Beautiful Boy: A Father's Journey Through his Son's Addiction. Boston, MA: Mariner Books; Lawford, C.K. (2014). From addict to advocate. Lifespan Learning Institute. Retrieved March 27 2014 from http://lifespanlearn.org/index.php/component/content/article?id=81; The Guardian (2014, July 3). Toronto mayor Rob Ford admits to drug and alcohol abuse – video. Retrieved July 3 2014 from www.theguardian.com/world/video/2014/jul/03/toronto-mayor-rob-ford-alcohol-abuse-video

[44] Levy, N. (2013). Addiction is not a brain disease (and it matters). Frontiers in Psychiatry, 4 (article 24), 1-6; Hart, C. (2013). High price: A neuroscientist's journey of self-discovery that challenges everything you know about drugs and society. New York, NY: HarperCollins; Satel, S. and Lilienfeld, S.O. (2013). Addiction and the brain-disease fallacy. Frontiers in Psychiatry, 4. (141). Retrieved April 3, 2014 from http://journal.frontiersin.org/Journal/10.3389/fpsyt.2013.00141/abstract#sthash.zmK5kqKM.dpuf

.dpuf

[45] Campbell, N.D. (2007). Discovering addiction: The science and politics of substance abuse research. Ann Arbor, MI: University of Michigan Press, p. 203.

[46] Leshner, A.I. (1997). Addiction is a brain disease and it matters. Science, 278 (5335), 45-47; Hoffman, J. and Froemke, S. (2007). Addiction: Why Can't They Just Stop? New York, NY: Rodale; Sheff, D. (2009) Beautiful boy: A father's journey through his son's addiction. Boston, MA: Mariner Books, pp. 320-321.

[47] Hoffman, J. and Froemke, S. (2007). Addiction: Why Can't They Just Stop? New York, NY: Rodale; Sheff, D. (2009) Beautiful boy: A father's journey through his son's addiction. Boston, MA: Mariner Books, pp. 320-321; Sheff, N. (2009).Tweak: Growing Up on Amphetamines. New York, NY: Athenum Books for Young Readers.

[48] See Heyman, G.M. (2009). Addiction: A Disorder of Choice. Cambridge, MA: Harvard University Press, pp. 65-67 for quotes and references to American authorities stating this position.

[48.1] I am mindful in writing this that some eminent scholars are making efforts to broaden the Official View by analysing the cultural factors that have shaped the Official View as well as the role of structural poverty as a risk factor in addiction. These scholars include C.J. Acker, "How Crack Found a Niche in the American Ghetto: The Historical Epidemiology of Drug-Related Harm," BioSocieties 5 (2010): 70-88; H.I. Kushner, "Toward a Cultural Biology of Addiction," Biosciences 5 (2010): 8-24; Courtwright, D.T. (2010). The NIDA brain disease paradigm: History, resistance, and spinoffs. Biosocieties, 5, 137-147.

[49] This assumption is repeated throughout Hoffman, J. and Froemke, S. (2007). Addiction: Why Can't They Just Stop? New York, NY: Rodale.

[50] Hoffman, J. and Froemke, S. (2007). Addiction: Why Can't They Just Stop? New York, NY: Rodale, pp. 17, 139, 148; Campbell, N. (2010) Toward a Critical Neuroscience of Addiction. BioSocieties, 5, 89-104.

[51] Campbell, N. (2007). Discovering addiction: The science and politics of substance abuse research. Ann Arbor, MI: University of Michigan Press, pp. 13, 28; Burt, G., Roney, C., Dawes, G., Nijdam, D., Beyerstein, B.L., Ossebaard, H.C., and Alexander, B.K. (1994). The "temperance mentality": A survey of students at a Canadian university. Contemporary Drug Problems, 21, 301-328.

[51.1] Augustine, St. (2009). Confessions (R. Warner, Trans.). New York: New American Library. (Original work published AD 397) Book 8, chap. 5.

[51.2] Aristotle (1925) Nichomachean Ethics (David Ross, Trans.) Oxford, UK: Oxford Univ. Press. (Original Work published about 350 BC), Book 7, chaps. 1-11.

[52] Campbell, N.D. (2007). Discovering addiction: The science and politics of substance abuse research. Ann Arbor, MI: University of Michigan Press, chap. 1).

[53] Koob, G.F. (2009). Neurological substrates for the dark side of compulsivity in addiction. Neuropharmacology, 56, 18–31. Robinson, T.E. & Berridge, K.C. (2008) The incentive sensitization theory of addiction: some current issues. Philosophical Transactions of the Royal Society B, 363, 3137-3146.

[54] See, for example, Kasanetz, F., Deroche-Gamonet, V., Berson, N., Balado, E., Lafourcade, M., Manzoni, O., Piazza, P.V. (2010). Transition to Addiction is Associated with a Persistent Impairment in Synaptic Plasticity. Science, 328, 1709-1712; S.H. Ahmed. (2010). "Validation Crisis in Animal Models of Drug Addiction: Beyond Non-disordered Drug Use toward Drug Addiction," Neuroscience and Biobehavioral Reviews, 35, 172–184.

[55] Hoffman and S. Froemke, Addiction: Why Can't They Just Stop? (New York: Rodale, 2007), pp. 40-43.

[56] Hoffman, J. and Froemke, S. (2007). Addiction: Why Can't They Just Stop? New York, NY: Rodale, pp. 70-73, 90-92.

[57] Orford, J. (2001). Excessive Appetites: A Psychological View of Addictions, 2nd ed., Chichester, UK: Wiley, pp. 332-340.

[58] Hoffman, J. and Froemke, S. (2007). Addiction: Why Can't They Just Stop? New York, NY: Rodale, p. 225.

[59] Hoffman, J. and Froemke, S. (2007). Addiction: Why Can't They Just Stop? New York, NY: Rodale. This idea is repeated on many pages throughout the book.

[60] Hoffman, J. and Froemke, S. (2007). Addiction: Why Can't They Just Stop? New York, NY: Rodale, p. 209.

[61] Hoffman, J. and Froemke, S. (2007). Addiction: Why Can't They Just Stop? New York, NY: Rodale, p. 56.

[62] Heyman, G.M. (2009). Addiction: A Disorder of Choice. Cambridge, MA: Harvard Uniersity Press.

[63] Maté, G. (2008). In the Realm of Hungry Ghosts: Close Encounters with Addiction. Toronto, ON: Knopf Canada; Bradshaw, J. (2009).Reclaiming Virtue: How We Can Develop the Moral Intelligence to do the Right Thing at the Right Time for the Right Reason. London, UK: Piatkus; Denizet-Lewis, B. (2009). America Anonymous: Eight Addicts in Search of a Life. New York, NY: Simon & Schuster.

[64] Leshner, A. (1998). NIDA Probes the Elusive Link Between Child Abuse and Later Drug Abuse. NIDA Notes, 13, no. 2.

[65] Sex Addiction Treatment Guide. Dr. Drew Talks Sex Addiction on Oprah. Accessed June 15, 2010 at http://sexaddictiontreatmentguide.com/sex-addiction-treatment/dr-drew-talks-sex-addiction-on-oprah/;
Bradshaw, J. (2009). Reclaiming Virtue: How We Can Develop the Moral Intelligence to do the Right Thing at the Right Time for the Right Reason. London, UK: Piatkus.

[66] Slater, J. (2014, February 5). America's rising heroin addiction. The Globe and Mail, p. A3. Retrieved February 11 2014 from http://www.theglobeandmail.com/news/world/americas-rising-heroin-addiction/article16723525/; Seelye, K.Q. (2014, March 5). Heroin Scourge Overtakes a 'Quaint' Vermont Town. New York Times. Retrieved April 21, 2014 from http://www.nytimes.com/2014/03/06/us/bulwark-in-revolutionary-war-town-in-vermont-faces-heroin-scourge.html?_r=0

[67] White, W.L. (1998). Slaying the dragon: The history of addiction treatment and recovery in America. Bloomington, IL: Chestnut Health Systems (pp. 96-100); Campbell, N.D. (2007). Discovering Addiction: The Science and Politics of Substance Abuse Research. Ann Arbor, MI: University of Michigan Press, chap. 1).

[68] Wikler, A. (1948). Recent progress in reseaerch on the neurophysiologic basis of morhine addiction. American Journal of Psychiatry, 105, 329-338.

[69] Goldstein, A. (1972). Heroin addiction and the role of methadone in its treatment. Archives of General Psychiatry, 26, 291-297; Goldstein, A. (1979). Heroin maintenance: A medical view: A conversation between a physician and a politician. Journal of Drug Issues, 9, 341-347.

[70] Herz, A. (1981). Role of endorphins in addiction. Modern Problems in Psychopharmacology, 17, 175-180.

[70.1] Leshner, A.I. (1997). Addiction is a brain disease and it matters. Science, 278 (5335), 45-47; Wise, R. (1988). The neurobiology of craving: Implications for the understanding and treatment of addiction. Journal of Abnormal Psychology, 97, 118-132.

[71] Goldstein,R.Z. & Volkow, N.D. (2002). Drug Addiction and Its Underlying Neurobiological Basis: Neuroimaging Evidence for the Involvement of the Frontal Cortex. American Journal of Psychiatry, 159, 1642-1652; Robinson, T.E. & Berridge, K.C. (2008) The incentive sensitization theory of addiction: some current issues. Philosophical Transactions of the Royal Society B, 363, 3137-3146; Koob, G.F. (2009). Neurological substrates for the dark side of compulsivity in addiction. Neuropharmacology, 56, 18–31; Nature Editorial Board (2014, 6 February). Animal Farm. Nature, 506 (Issue 7486), 5.

[72] Alexander, B.K. (2010). The Globalization of Addiction: A Study in Poverty of the Spirit. Oxford, UK: Oxford University Press, paperback edition. For a review of the critical literature beyond that cited in this paper, see the references cited in chap. 8. See also Heyman, Hart, and the new Peele book.

[73] Peele, S. and Brodsky, A. (1975). Love and addiction. Scarborough, Ontario: Ne American Library of Canada; Orford, J. (2001). Excessive Appetites: A Psychological View of Addictions, 2nd ed., Chichester, UK: Wiley; Maté, G. (2008). In the Realm of Hungry Ghosts: Close Encounters with Addiction. Toronto, ON: Knopf Canada; Alexander, B.K. (2010). The Globalization of Addiction: A Study in Poverty of the Spirit. Oxford, UK: Oxford University Press, paperback edition, pp. 34-36, chaps. 9, 10; J. Bradshaw, Reclaiming Virtue: How We Can Develop the Moral Intelligence to do the Right Thing at the Right Time for the Right Reason (London, UK: Piatkus, 2009); B. Denizet-Lewis, "America Anonymous: Eight Addicts in Search of a Life. (New York: Simon & Schuster, 2009). Polk, S. “For the love of money.” The New York Times Sunday Review, 2014, January 18. Retrieved January 19 2014 from www.nytimes.com/2014/01/19/opinion/sunday/for-the-love-of-money.html?ref=opinion.

[74] Hamblin, J. (2013, October 17). How Oreos Act Like Cocaine. The Atlantic, Retrieved January 24 2014 from http://www.theatlantic.com/health/archive/2013/10/how-oreos-work-like-cocaine/280578/

[75] Food addiction is one example, among many. Davis, C. (2013). Compulsive Overeating as an Addictive Behavior: Overlap Between Food Addiction and Binge Eating Disorder. Current Obesity Reports, 2, 171-178; Davis, C., Loxton, N.J., Nevitan, R.D., Kaplan, A.S., Carter, J.C., and Kennedy, J.L. (2013). 'Food addiction' and its association with a dopaminergic multilocus genetic profile. Physiology & Behavior, 118, 63-69; Volkow, N.D. and Wise, R.A. (2005). How Can Drug Addiction Help us Understand Obesity. Nature Reviews: Neuroscience, 8, 555-560; Frascella, J., Potenza, M.N., Brown, L.L., and Childress, A.R. (2010). Shared brain vulnerabilities open the way for nonsubstance addictions: Carving addiction at a new joint. Annals of the New York Review of Sciences, Addiction Reviews, 2, 294-315.

[76] Many of these studies are reviewed in Alexander, B.K. (2010). The Globalization of Addiction: A Study in Poverty of the Spirit. Oxford, UK: Oxford University Press, paperback edition, chap. 8. See also Alexander, B.K. and Shelton, C.S. (2014). A history of psychology in western civilization. Cambridge, UK: Cambridge Univ. Press, pp. 399-404.

[77] For a review of this literture see Alexander, B.K. (2010). The Globalization of Addiction: A Study in Poverty of the Spirit. Oxford, UK: Oxford University Press, paperback edition, pp. 186-189; See also Shewan, D. and Dalgarno, P. (2005). Low levels of netative health and social outcomes among non-treatment heroin users in Glasgow (Scotland): evidence for controlled heroin use? British Journal of Health Psychology, 10, 33-48; Hart, C. (2013). High Price: A neuroscientist’s voyage of self-discovery that challenges everything you know about drugs and society. New York, NY: HarperCollins; Tierney, J. (2013, September 16). The rational choices of crack addicts. The New York Times, Retrieved 30 Sept 2013 from www.nytimes.com/2013/09/17/science/the-rational-choices-of-crack-addicts.html?pagewanted=all

[78] Goldstein, A. (1972). Heroin addiction and the role of methadone in its treatment. Archives of General Psychiatry, 26, 291-297; Goldstein, A. (1979). Heroin maintenance: A medical view: A conversation between a physician and a politician. Journal of Drug Issues, 9, 341-347.

[79] Alexander, B., Coambs, R., & Hadaway, P. (1978). The effect of housing and gender on morphine self-administration in rats. Psychopharmacology, 58, 175-179; Solinas, M., Thiriet, N., El Rawas, R., Lardeux, V., and Jaber, M. (2009). Environmental Enrichment During Early Stages of Life Reduces the Behavioral, Neurochemical, and Molecular Effects of Cocaine. Neuropsychopharmacology, 34, 1102–1111.

[80] Goldacre, B. (2009, June 13). Cocaine Study That Got up the Nose of the US. Guardian (UK), , p. 8. See also The WHO Cocaine Project, Website of the Transnational Institute. Retrieved 20 October 2010 from http://www.tni.org/article/who-cocaine-project.

[81] Alexander, B.K. (2010). The Globalization of Addiction: A Study in Poverty of the Spirit. Oxford, UK: Oxford University Press, paperback edition, pp. 158-160 and associated endnotes; Jensen, D. (2006). The End of Civilization, vol. 1 of Endgame. New York, NY: Seven Stones, p.153; Maté, G. (2008). In the Realm of Hungry Ghosts: Close Encounters with Addiction. Toronto, ON: Knopf Canada; Sheff, N. (2009). Tweak: Growing up on Methamphetamine. New York, NY: Athenium Books for Young Readers, p. 150 ff; Hart, C. (2013). High price: A neuroscientist's voyage of self-discovery that challenges everything you know about drugs and society. New York, NY: HarperCollins.

[82] Hart, C. (2013). High price: A neuroscientist's voyage of self-discovery that challenges everything you know about drugs and society. New York, NY: HarperCollins, chap. 13

[83] Alexander, B.K. & Shelton, C.P. (2014). A history of psychology in western civilization. Cambridge, UK: Cambridge University Press (chap. 9).

[83.1] e.g., The Guardian (2014, July 3). Toronto mayor Rob Ford admits to drug and alcohol abuse – video. Retrieved July 3 2014 from www.theguardian.com/world/video/2014/jul/03/toronto-mayor-rob-ford-alcohol-abuse-video

[84] Davies, J.B. (1992). The Myth of Addiction: An Application of the Psychological Theory of Attribution to Drug Use. London, UK: Routledge.

[85] Vaillant, G.E. (1977). Adaptation to Life. Boston, MA: Little, Brown.

[86] For a recent statement of this idea, with comments on some of the older versions, see Goldstein, R.Z., Craig, A.D., Bechara, A., Garavan, H.. Childress, A.R., Paulus, M.P., and Volkow, N.D. The Neurocircuitry of Impaired Insight in Drug Addiction. Trends in Cognitive Sciences, 13, 372-380.

[87] For a excellent short summary of epigenetic evidence against this claim, see Maté, G. (2008). In the Realm of Hungry Ghosts: Close Encounters with Addiction. Toronto, ON: Knopf Canada, chap. 19 and appendix I. See also H. Kalant, "What Neurobiology Cannot Tell us About Addiction," Addiction 105 (2009).

[88] Mameli, M. and Bateson, P. (2011). An evaluation of the concept of innateness. Philosophical Transactions of the Royal Society B, 366 (1563), 436-443.

[89] Heyman, G.M. (2009). Addiction: A Disorder of Choice. Cambridge, MA: Harvard University Press,, chap. 4; Peele, S. (2014, January 1). Government Says You Can't Overcome Addiction, Contrary to What Government Research Shows. Reason.com. Downloaded February 1 2014 from http://reason.com/archives/2014/02/01/the-government-wants-you-to-know-you-can

[90] Heyman, G.M. (2009). Addiction: A Disorder of Choice. Cambridge, MA: Harvard University Press, pp. 79-80.

[91] Granfield, R. and Cloud, W. (1999). Coming Clean: Overcoming Addiction Without Treatment. New York, NY: New York University Press; B.K. Alexander, The Globalization of Addiction: A Study in Poverty of the Spirit (Oxford: Oxford University Press, 2010), pp. 160-161, 290.

[92] Sharpley, J.M. (2014). Thinking outside the brain: Testing predictors of drug addiction anticipated by dislocation theory. Unpublished M.Sc. Thesis, Faculty of Health Sciences, Simon Fraser University, pp. 6-7. See also Hammer, R., Dingel, M., Ostergren, J., Partridge, B., McCormick, J, & Koenig, B. (2013). Addiction: Current criticism of the brain disease paradigm. AJOB Neuroscience, 4(3), pg. 27-32.

[92.1] Scully, J.L. (2004). What is a disease? Disease, disability, and their definitions. European Molecular Biology Organization Reports, 5(7), 650-653

[93] Alexander, B.K. (2010). The Globalization of Addiction: A Study in Poverty of the Spirit. Oxford, UK: Oxford University Press, paperback edition, pp. 38-40; D.T. Courtwright, D.T. (2010). The NIDA brain disease paradigm: History, resistance, and spinoffs. Biosocieties, 5, 137-147. Einstein, S. (Ed.) (2012). Substance Use(r) Intervention Failure. Special Double Issue of Substance Use & Misuse, 47, Numbers 13 & 14.

[94] For a review of this literature see Alexander, B.K. (2010). The Globalization of Addiction: A Study in Poverty of the Spirit. Oxford, UK: Oxford University Press, paperback edition, chap. 6.

[95] Alexander, B.K. (2010). The Globalization of Addiction: A Study in Poverty of the Spirit. Oxford, UK: Oxford University Press, paperback edition, pp. 129-137; chap. 9.

[96] Berridge, V. and Edwards, G. (1987). Opium and the People: Opiate Use in Nineteenth Century England. London, UK: Allan Lane, pp. 156-157; Kushner, H.I. (2010). Toward a Cultural Biology of Addiction. Biosciences, 5, 8-24.

[97] Leshner, A.I. (1997). Addiction is a brain disease and it matters. Science, 278 (5335), 45-47; Hoffman, J. and Froemke, S. (2007). Addiction: Why Can't They Just Stop? New York, NY: Rodale).

[98] Alexander, B.K. (2010). The Globalization of Addiction: A Study in Poverty of the Spirit. Oxford, UK: Oxford University Press, paperback edition, chap. 8; Ahmed, S.H. (2010). Validation crisis in animal models of drug addiction: Beyond Non-disordered drug use toward drug addiction. Neuroscience and Biobehavioral Reviews, 35, 172-184.

[99] See Hoffman, J. and Froemke, S. (2007). Addiction: Why Can't They Just Stop? New York, NY: Rodale.

[100] H. Kalant, "What Neurobiology Cannot Tell us About Addiction," Addiction 105 (2009): 780-789; L. Sanders, "Trawling the Brain: New Findings Raise Questions About Reliability of fMRI as Gauge of Neural Activity," Science News 176, no. 13 (2009): 16-20.

[101] Berridge, V. and Edwards, G. (1987). Opium and the People: Opiate Use in Nineteenth Century England. London, UK: Allan Lane, pp. 153-157; Rasmussen, R. (2010). Maurice Seevers, the Stimulants and the Political Economy of Addiction in American Biomedicine. BioSocieties, 5, 105–123; Acker, C.J. (2010). How Crack Found a Niche in the American Ghetto: The Historical Epidemiology of Drug-Related Harm. BioSocieties, 5, 70-88;Pignarre, P. Comment la Dépression est Devenue une Épidémie. Paris: La Découverte; Wilson, D. (2010, November 30).Drug Maker Wrote Book Under 2 Doctors' Names, Documents Say. New York Times, p. B3; See also Campbell, N. (2010). Toward a Critical Neuroscience of Addiction. BioSocieties, 5, 89-104. Campbell has pointed out that if a specific physiological basis for addiction can be discovered, it will then become a "molecular target" at which pharmaceutical companies can aim highly profitable magic bullets.

[102] Kuhn, T.S. (1970). The Structure of Scientific Revolutions, 2nd ed., enlarged. Chicago, IL: University of Chicago Press.; Jensen, P. (2010, June). L'histoire des sciences n'est pas un long fleuve tranquille. Le Monde diplomatique, p. 31.

[103] Hoffman, J. and Froemke, S. (2007). Addiction: Why Can't They Just Stop? New York, NY: Rodale, p. 45.

[104] A Christian version of this folk theory is stated in the works of St. Augustine in the 4th century and its influence on the Official View via Alcoholic Anonymous is outlined by Alexander, B.K. (2010). The Globalization of Addiction: A Study in Poverty of the Spirit. Oxford, UK: Oxford University Press, paperback edition, pp. 205-214, 288-294). For the 19th century medical/moral/drug version, which is remarkably similar to the supposed new paradigm of the Official View, see Berridge, V. and Edwards, G. (1987). Opium and the People: Opiate Use in Nineteenth Century England. London, UK: Allan Lane, chap. 13 and White, W.L. (1998). Slaying the Dragon: The history of addiction treatment and recovery in America. Bloomington, IL: Chestnut Hill Systems, Sections 1-4. For an evaluation of the influence of older knowledge on the supposed new paradigm of NIDA scientists, see Campbell, N.D. (2007). Discovering Addiction: The Science and Politics of Substance Abuse Research. Ann Arbor, MI: University of Michigan Press, p. 203. For a study of the powerful influence of moral panics of the American post-Vietnam era on the directon of breakthroughs in the scientific study of addiction see Vrecko, S. (2010). Birth of a brain disease: science, the state and addiction neuropolitics. History of the Human Sciences, 23(4), pg. 52-67.

[105] Krugman, P. (2009, September 2). How Did Economists Get it so Wrong? New York Times, p. 36.

[106] For example, Langeland, W. and Hargers, C. (1998). Child Sexual and Physical Abuse and Alcoholism: A Review. Journal of Studies on Alcohol, 59, 336-348; Lo, C.C. and Cheng, T.C. (2007). The Impact of Childhood Maltreatment on Young Adults' Substance Abuse. The American Journal of Drug and Alcohol Abuse, 33, 139-146.

[107] Horowitz, A.V., Widom, C.S., McLaughlin, J. and White, H.R. (2001). The Impact of Childhood Abuse and Neglect on Adult Mental Health: A Prospective Study. Journal of Health and Social Behavior, 42, 184-201; Widom, C.S. Marmorstein, N.R. and White, H.R. (2006). Childhood Victimization and Illicit Drug Use in Middle Adulthood. Psychology of Addictive Behaviors, 20, 394-403; Sartor, C.E., Agrawal, A., McCutcheon, V.V., Duncan A.E., and Lynskey, M.T. (2008). Disentangling the Complex Association Between Childhood Sexual Abuse and Alcohol-Related Problems: A Review of Methodological Issues and Approaches. Journal of Studies on Alcohol and Drugs, 69, 718-727.

[108] Dube, S.R., Anda, R.F., Felitti, A.E., Edwards, V.J., and Croft, J.B. (2002). Adverse Childhood Experiences and Personal Alcohol Abuse as an Adult. Addictive Behaviors, 27, 713-725; Messina, N., Marinelli-Casey, P., Hillhouse, M.,

Rawson, R., Hunter, J., and Ang, A. (2008, November). Childhood Adverse Events and Methamphetamine Use Among Men and Women. Journal of Psychoactive Drugs SARC, Supplement 5, 399-409.

[109] Filmwest Associates, "From Grief to Action" (2002). (Documentary film available from http://www.filmwest.com/Catalogue/itemdetail/2396/)

[110] Pearson, H. (2004, 22 July) Science and the war on drugs: A hard habit to break. Nature, 430(6998), 394-395.

[111] Courtwright, D.T. (2010). The NIDA brain disease paradigm: History, resistance, and spinoffs. Biosocieties, 5, 137-147.

[112] See the definition of "trafficking" in Canada's Controlled Drugs and Substances Act, p. 3, http://laws.justice.gc.ca/PDF/Statute/C/C-38.8.pdf

[113] Hoffman, J. and Froemke, S. (2007). Addiction: Why Can't They Just Stop? New York, NY: Rodale, p. 56.

[114] Hoffman, J. and Froemke, S. (2007). Addiction: Why Can't They Just Stop? New York, NY: Rodale, p. 46; Brand, R. (2013, March 9). My life without drugs. The Guardian. Retrieved February 4 2014 from http://www.theguardian.com/culture/2013/mar/09/russell-brand-life-without-drugs

[115] For the roots of the Dislocation Theory in Plato, see Alexander, B.K. (2010). The Globalization of Addiction: A Study in Poverty of the Spirit. Oxford, UK: Oxford University Press, paperback edition, chap. 13. For the roots of Dislocation Theory in John Locke's conception of the "free mind" and "external restraint" see Alexander, B.K. & Shelton, C.P. (2014). A history of psychology in western civilization. Cambridge, UK: Cambridge University Press, pp. 277-282. These pages will show that Locke also provided the roots for a moralistic analysis of addiction.

[116] For a literature review of several lines of social science research see Alexander, B.K. (2010). The Globalization of Addiction: A Study in Poverty of the Spirit. Oxford, UK: Oxford University Press, paperback edition, chaps. 4, 7.

[117] Lalonde, M. (1974). A new perspective on the health of Canadians: A working document. Ottawa, ON: Government of Canada; Mental Health Commission of Canada (2008). Mental health and homelessness. Ottawa, ON: Government of Canada. Accessed July 15, 2009 at http://www.mentalhealthcommission.ca/English/Pages/homelessness.aspx.

[118] For a literature review of several well-documented historical linkages between mass dislocation and the prevalence of addiction see Alexander, B.K. (2010). The Globalization of Addiction: A Study in Poverty of the Spirit. Oxford, UK: Oxford University Press, paperback edition, chap. 6.

[119] Alexander, B.K. and Shelton, C.S. (2014). The history of psychology in western civilization. Cambridge, UK: Cambridge University Press, chap. 7.

[119.1] Russell, C., Davies, J.B., and Hunter, S.C. (2011) Predictors of Addiction Treatment Providers' Beliefs in the Disease and Choice Models of Addiction. Journal of Substance Abuse Treatment, 40, 150-164.

[120] Alexander, B.K. (2010).The Globalization of Addiction: A Study in Poverty of the Spirit. Oxford, UK: Oxford University Press, paperback edition, pp. 158-160

[121] Skinner, W. and Herie, M. Biopsychosocial Plus: a practical approach to addiction and recovery. In M. Herie and W. Skinner (Eds.) (2013). Fundamentals of addiction: A practical guide for counselors. Toronto: Centre for Addiction & Mental Health: pp. 3-27.

[122] Hart, C. (2013). High price: A neuroscientist's journey of self-discovery that challenges everything you know about drugs and society. New York, NY: HarperCollins; See British Medical Association Annual Book Competition Winners Website http://www.bma.org.uk/whats_on/offers_and_competitions/2009bookcompetitionwinners.jsp#Mental_health

[123] Orford, J. (2001). Excessive Appetites: A Psychological View of Addictions, 2nd ed., Chichester, UK: Wiley; Alexander, B.K. (2010). The Globalization of Addiction: A Study in Poverty of the Spirit. Oxford, UK: Oxford University Press, paperback edition, pp. 34-36, chaps. 9, 10; Bradshaw, J. (2009). Reclaiming Virtue: How We Can Develop the Moral Intelligence to do the Right Thing at the Right Time for the Right Reason. London, UK: Piatkus; Denizet-Lewis, B. (2009). America Anonymous: Eight Addicts in Search of a Life. New York: Simon & Schuster; Maté, G. (2008). In the Realm of Hungry Ghosts: Close Encounters with Addiction. Toronto, ON, Knopf, Canada.

[124] Alexander, B.K. and Schweighofer, A.R.F. (1988). Defining "addiction". Canadian Journal of Psychology, 29, 151-163; Sussman, S. Lisha, N . and Griffiths, M. (2011). Prevalence of the addictions: A problem of the minority or of the majority? Evaluation & the Health Professions, 34, 3-56.

[125] Nesse, R.M. (2000). Is depression an adaptation? Archives of General Psychiatry, 57, 14-20; Maner, J.K. and Kenrick, D.T. (2011, August 11). When adaptations go awry: Functional and dysfunctional aspects of social anxiety:. NIH Public Access Author Manuscript. Retrieve June 4 2014 from www.ncbi.nlm.nih.gov/pmc/articles/PMC3161122/

[126] Mann, C.C. (2011). 1493: Uncovering the New World Columbus created. New York, NY: Vintage Books; Wright, J. (2004). God's soldiers: Adventure, politics, intrigue, and power – A history of the Jesuits. New York, NY: Doubleday. See especially chaps. 2-4.

[127] Polanyi, K. (1944). The great transformation: The political and economic origins of our times. Boston, MA: Beacon.

[128] A particularly well documented example from the United States is the gradual destruction of small family farms and the rural culture that surrounds them by hi-technology agricultural corporations and by government regulation designed to produce a powerful export industry: Allen, W. (2008). The war on bugs. White River Junction, Vermont: Chelsea Green Publishing, esp. chaps. 19, 22; Reding, N. (2009). Methland: The death and life of an American small town. New York, NY: Bloomsbury. Another example that is best documented in the U.S. is the massive surveillance of personal communications and activities that destroys people's sense of privacy and free association: Snowden, E. (2014, June 7). How the National Security State kills a free society. Reader Supported News. Retrieved June 7 2014 from: http://readersupportednews.org/opinion2/277-75/24094-how-the-national-security-state-kills-a-free-society; The cutting edge of this trend may be the potential computerization of intimate sexual relationships: Leith, S. (2014, June 6). From teledildonics to interactive porn: The future of sex in a digital age. The Guardian. Retrieved June 10 2014 from http://www.theguardian.com/lifeandstyle/2014/jun/06/teledildonics-interactive-porn-sex-in-digital-age

[129] Chossudovsky, M. (2003).The Globalization of Poverty: Impact of IMF and World Bank Reforms. London, UK: Zed; Dufour, D.-R. (2003). L'art de réduire les têtes; Sur la nouvelle servitude de l'homme libéré à l'ere du capitalisme total. Paris: Édition Nöel; Bayley, C.A. (2004). The birth of the modern world. Oxford, UK: Blackwell; Alexander, B.K. (2010). The Globalization of Addiction: A Study in Poverty of the Spirit. Oxford, UK: Oxford University Press, paperback edition, chap. 5; McGilchrist, I. (2009). The master and his emissary: The divided brain and the making of the western world. New Haven, Connecticut: Yale University Press; Smith, H.L. (2014). Harry's last stand: How the world my generation built is falling down and what we can do to save it. London, UK: Icon.

[130] McGilchrist, I. (2009). The master and his emissary: The divided brain and the making of the western world. New Haven, Connecticut: Yale University Press., chaps. 7-12)

[131] Bayley, C.A. (2004). The Birth of the Modern World. Oxford, UK: Blackwell; Mann, C.C. (2011). 1493: Uncovering the New World Columbus created. New York, NY: Vintage Books.

[132] Polanyi, K. (1944). The great transformation: The political and economic origins of our times. Boston, MA: Beacon; Alexander, B.K. (2010). The Globalization of Addiction: A Study in Poverty of the Spirit. Oxford, UK: Oxford University Press, paperback edition, chap. 4. Tolman, C.W. (2013). Sumus ergo sum: The psychology of self and how Descartes got it wrong. In W.E. Smythe (Ed.), Toward a psychology of persons. New York, NY: Psychology Press (pp. 3-24).

[132] Erikson, E.H. (1963). Childhood and society (2nd ed.). New York: Norton.

[134] Maté, G. (2008). In the Realm of Hungry Ghosts: Close Encounters with Addiction. Toronto, ON, Knopf, Canada, pp. 205-207.

[135] Bowlby, J. (1969). Attachment. Volume I of Attachment and Loss. New York: Basic Books.

[136] Surowiecki, J. (2104, June 26). Real estate goes global. The New Yorker. Retrieved June 4 2014 from www.newyorker.com/talk/financial/2014/05/26/140526ta_talk_surowiecki

[137] Nobody has expressed this fact more directly or eloquently than comedian and political activist Russell Brand. Writing of political apathy, which is a portion of the larger problem of dislocation, in the New Statesman, he said : "Apathy is a rational reaction to a system that no longer represents, hears or addresses the vast majority of people.

A system that is apathetic, in fact, to the needs of the people it was designed to serve." See Brand, R. (2013, October 24). Russell Brand on revolution: "We no longer have the luxury of tradition." The New Statesman. Retrieved June 10 2014 from http://www.newstatesman.com/politics/2013/10/russell-brand-on-revolution

[138] McLaren, L. (2014, March 17). All the lonely old people. Maclean's, 127(10), 36.

[139] Deraniyagala, S. (2013). Wave: A memoir. Toronto: McClelland & Stewart.

[139.1] Dufour, D.-R. (2003). L'Art de Réduire les Têtes; Sur la nouvelle servitude de l'Homme Libéré à l'Ere du Capitalisme Total. Paris: Édition Nöel; Dufour, D.-R. (2003, October). Servitude de l'homme libéré: A l'heure du capitalisme total. Le Monde diplomatique, p. 3.

[140] Wilkenson, R. & Pickett, K. (2009). The spirit level: Why equality is better for everyone. London, UK: Penguin. Picketty, T. and Goldhammer, A. (2014). Capitalism in the twenty-first century. Cambridge, MA: Harvard University Press.

[141] Polanyi, K. (1944). The great transformation: The political and economic origins of our times. Boston, MA: Beacon.

[142] Alexander, B.K. (2010). The Globalization of Addiction: A Study in Poverty of the Spirit. Oxford, UK: Oxford University Press, paperback edition, chaps. 5-7.

[143] Alexander, B.K. (2010). The Globalization of Addiction: A Study in Poverty of the Spirit. Oxford, UK: Oxford University Press, paperback edition. See case studies in chapters 9 and 10 and references in endnote 18, p. 23.

[144] Many wealthy people are severely and tragically addicted. In some cases their dislocation is glaringly obvious, most famously in the cases of the celebrities like Michael Jackson, Kurt Cobain, Amy Weinhouse. In other cases, dislocation is revealed in biographical and autobiographical writing (Slater, P. 1980. Wealth addiction. New York: Dutton.) The failure of money to overcome dislocation can also be documented by the tragic experience of many tribal groups of Canadian Indians who were given substantial amounts of money in payment for the seizure of land and resources that had been the backbone of their formerly healthy cultures and psychosocial integration, as, for example, in the Innu people who were moved from Davis Inlet to Natuashish (Alexander, B.K. 2010. The Globalization of Addiction: A Study in Poverty of the Spirit. Oxford, UK: Oxford University Press, paperback edition, pp. 131-136).

[145] Emile Durkheim argued that the primary cause of suicide in 19th century Europe was the failure of people to achieve or maintain integration with their society. His conclusion was based on minute analysis of suicide statistics, which showed that suicide was less frequent at times and in places that favored psychosocial integration (Durkheim, E. 1951. Suicide: A study in sociology, trans. J.A. Spaulding and G. Simpson. Glencoe, IL: Free Press (original work published 1897). Durkheim's conclusion has been challenged in more recent literature. However, Chandler and his colleagues carried out quantitative studies of suicide among aboriginal children in British Columbia during two time periods, 1987 - 1992 and 1997 - 2000. These studies showed that the relative frequency of suicide is much higher among aboriginal children whose bands are more estranged from their traditional culture than among those whose bands are less estranged. In both studies, bands that had a positive rating on all seven of the "cultural continuity variables" had no suicides at all, whereas bands with a positive score on none of the cultural continuity variables had child suicide rates of 137.5 and 61 per 100,000 population See Chandler, M.J., Lalonde, C.E., Sokol, B.W., and Hallet, D. (2003). Personal Persistence, Identity Development, and Suicide: A Study of Native and Non-Native North American Adolescents. Monographs of the Society for the Study of Child Development, 68(2). See also Polanyi, K. (1944).The Great Transformation: The Political and Economic Origins of Our Times. Boston, MA: Beacon Press; Bourdieu, P. Ce terrible repos qui est celui de la mort social. (2003, June). Le Monde diplomatique (original work published 1981); Deraniyagala, S. (2013). Wave: A memoir. Toronto: McClelland & Stewart, pp. 55-59; Alexander, B.K. (in preparation). Alcohol Prohibition Among the Tse-Shaht Indians, 1860-1865: A Natural Experiment" Revised version of presentation at 5th International Conference on the History of Drugs and Alcohol: Pathways to Prohibition, Glasgow, June 27 2009.

[146] N. Klein, The Shock Doctrine: The Rise of Disaster Capitalism (Toronto, ON: Knopf, 2007), chap. 1. Democracy Now (March 18, 2014). A Sliver of Light: Freed U.S. Hikers on Captivity in Iran & Activism Against Solitary Confinement (Amy Goodman interview).

[147] For a literature review, see Alexander, B.K. (2010). The Globalization of Addiction: A Study in Poverty of the Spirit. Oxford, UK: Oxford University Press, paperback edition, chaps. 6-8.

[148] Burroughs, W.S. (1967). Kicking Drugs: A very personal story. Harper's, 235, 39-42; Pryor,W. (2003) The Survival of the Coolest: an Addiction Memoir. Bath, UK: Clear Press; Alexander, B.K. (2010). The Globalization of Addiction: A Study in Poverty of the Spirit. Oxford, UK: Oxford University Press, paperback edition, p. 164-165.

[149] Ryan, D. (2014a, April 26). Hastings Park gallops on: The glory days are gone but Vancouver's racetrack still has its own unique community. The Vancouver Sun, pp. B11-B12; Ryan, D. (2014b, April 26). Living the life: The mystical beauty of horses and family of racetrack personalities captivate Vancouver author Kevin Chong. The Vancouver Sun, p. B12.

[150] Maner, J.K. and Kenrick, D.T. (2011, August 11). When adaptations go awry: Functional and dysfunctional aspects of social anxiety:. NIH Public Accesss Author Manuscript. Retrieved June 4 2014 from www.ncbi.nlm.nih.gov/pmc/articles/PMC3161122/

[151] Greenberg, N., Carr, J.A., and Summers, C.H. (2002). Causes and consequences of stress. Integrative and Comparative Biology, 42, 508-516.

[152] Heyman, G.M. (2009). Addiction: A Disorder of Choice. Cambridge, MA: Harvard University Press, pp. 79-88, chap. 4; R. Granfield and W. Cloud, Coming Clean: Overcoming Addiction Without Treatment (New York: New York University Press, 1999); Alexander, B.K. (2010). The Globalization of Addiction: A Study in Poverty of the Spirit. Oxford, UK: Oxford University Press, paperback edition, pp. 160-161, 290; Peele, S. (2014, January 1). Government Says You Can't Overcome Addiction, Contrary to What Government Research Shows. Reason.com. Downloaded February 1 2014 from http://reason.com/archives/2014/02/01/the-government-wants-you-to-know-you-can

[153] Polanyi, K. (1944). The Great Transformation: The Political and Economic Origins of Our Times. Boston, MA: Beacon, p. 128, italics added.

[154] Kapica, J. (2003, December 11). Copyright Litigation is Threatening Innovation. The Globe and Mail, p. B13.

[155] Fawcett, B. (2004, April 3). Saving Culture From the Market, review of Blockbusters and Trade Wars: Popular Culture in a Globalized World, by P.S. Grant and C. Wood, The Globe and Mail, p. D5.

[156] Illouz, E. (2007). Cold Intimacies: The Making of Emotional Capitalism. Cambridge, UK: Polity; A Volga Girl (2014). Downloaded June 30 2014 from www.volgagirl.com/

[157] Dufour, D.-R. (2003). L'Art de Réduire les Têtes; Sur la nouvelle servitude de l'Homme Libéré à l'Ere du Capitalisme Total Paris: Édition Nöel; Dufour, D.-R. (2003, October). Servitude de l'homme libéré: A l'heure du capitalisme total. Le Monde diplomatique, p. 3; Abley, M. (2004, April 3). Where's the Rage When You Need it? review of The Defiant Imagination: Why Culture Matters, by M. Wyman, The Globe and Mail, p. D4; Fawcett,B. (2004, April 3). Saving Culture From the Market, review of Blockbusters and Trade Wars: Popular Culture in a Globalized World, by P.S. Grant and C. Wood. The Globe and Mail, p. D5; D. Ticoll, (2005, April 30). Flatism Will Get You Everywhere, review of The World is Flat: A Brief History of the Twenty-First Century, by T.L. Friedman, The Globe and Mail, p. D14.

[158] Here is a standard definition of social capital: "… a person's or group's concern, caring, regard, respect, or sense of obligation for the well-being of another person or group that may produce a potential benefit, advantage, and preferential treatment for another person or group beyond that which might be expected in an [economic] exchange relationship." (Veltmeyer, H. (2005) Neoliberal Globalisation and the Peasantry: Political Dynamics of Social Choice in Latin America. (paper presented at the 10th International Conference of the Karl Polanyi Institute, Istanbul, Turkey, October 14-16, 2005), p. 2 of the printed version of the talk).

[159] Illouz, E. (2007). Cold Intimacies: The Making of Emotional Capitalism. Cambridge, UK: Polity, pp. 62-67; Illouz, E. (2008). Saving the Modern Soul: Therapy, Emotions, and the Culture of Self Help. Berkeley, CA: University of California Press, pp. 175, 180.

[160] Beniger, J.R. (2008). The Control Revolution: Technical and Economic Origins of the Information Society. Cambridge, MA: Harvard University Press; Bourdieu, P. (1998, March). L'essence du néolibéralisme. Le Monde diplomatique, p. 3; Dobbin, M. (1998). The Myth of the Good Corporate Citizen: Democracy Under the Rule of Big Business. Toronto, ON: Stoddard, 1998), chap. 3; Ramonet, I. (2000). Propagande silencieuse: Masses, télévision, cinéma. Paris: Galilée; Blackwell, R. (2003, October 3) Corus Banking on 'Kidfluence', The Globe and Mail, pp. B1, B10; Partridge, J. (2005, August 23). Savings Gap Seen as a Threat to Growth in Canada: Companies Said Saving Too Much, Households Too Little. The Globe and Mail, p. B4; Fritz, M. (2005, August 23). Not Enough Babies: Report Fingers New Threat to Economy. The Globe and Mail, p. B12; Wegert, T. (2005, July 21). The Web Cookie is Crumbling – And Marketers Feel the Fallout. The Globe and Mail, p. B9. Inman, P. (2014, June 25). Vince Cable moves to ban zero-hours contract exclusivity clauses.The Guardian, Retrieved July 1 2014 from www.theguardian.com/uk-news/2014/jun/25/vince-cable-moves-against-zero-hours-contracts

[161] Booth, R. (2014, June 30). Facebook reveals news feed experiment to control emotion. The Guardian, retrieved July 1 2014 from www.theguardian.com/technology/2014/jun/29/facebook-users-emotions-news-feeds

[162] Dislocation is far from just an urban phenomenon. See Lackner, C. (2004, July 27). Small is Scary: The Village is Yet Another Tale of Terror in a Little Town. Just What Makes Them so Frightening? The Globe and Mail, pp. R1, R5; Mooers, A. (2004, December 20). Now the News Hits Home: When the Local Pulp Mill Closed, it Was Not Just Another Headline. Maclean's 117 (51), p. 56.

[163] Saunders, J. (2003, October 14). IT Jobs Contracted From Far and Wide: North American Companies are Saving Money by 'Offshoring'. The Globe and Mail, p. B1; Ramirez, A. (2004, October 8). Life With Layoffs: The New Normal. The Globe and Mail, p. C1; Pitts, G. (2006, May 29). Industrial Evolution. The Globe and Mail, pp. B1, B4.

[164] McCarthy, S. (2004, Sept 14). Pension Crisis Fears Deepen as US Air Seeks to Skip Contributions. The Globe and Mail, pp. B1, B8; McCarthy, S. (2005, October 10) GM Braces For Fallout From Delphi. The Globe and Mail, pp. B1, B4; The Globe and Mail. (2004, September 20). The Pension Trap. The Globe and Mail, p. A12; R.D. Atlas and M.W. Walsh, "Pension Officers Putting Billions into Hedge Funds: Question Raised on Risk," New York Times, November 27, 2005, pp. A1, A27; A. Shalai-Esa, "U.S. Auditor Warns of Crisis Unless Pension Issue Resolved, Globe and Mail, May 1, 2006, p. B11.

[165] Bouffartigue, P. (2002, May). Fracture chez les cols blancs. Le Monde diplomatique, pp. 8-9.

[166] Lordon, F. (2003.)Et la vertue sauvera le monde: Après la débâcle financière, le salut par l'Èthique? (Paris: Raisons d'Agir); Lordon, F. (2004, March). Comment la finance a tué Moulinex: Un cas d'école. Le Monde diplomatique, pp. 1, 22-23; Davies, P.J., Hughes, J., and Tett, G., So What is it Worth? Financiers and Accountants Wrangle Over Credit Pricing. Financial Times (London), p. 13.

[167] Dufour has described the effects of "le capitalisme total": Dufour, D.-R. (2003). L'Art de Réduire les Têtes; Sur la nouvelle servitude de l'Homme Libéré à l'Ere du Capitalisme Total Paris: Édition Nöel; Dufour, D.-R. (2003, October). Servitude de l'homme libéré: A l'heure du capitalisme total. Le Monde diplomatique, p. 3.

[168] Hickman, T.A. (2007). The secret leprosy of modern days: Narcotic addiction and the cultural crisis in the United States, 1870-1920. Amherst, MA: University of Massachusetts Press.

[169] This is true even though the Official View has begun to acknowledge that some addictions, like gambling and overeating, do not involve drugs. Still today, whether or not a habit is considered an addiction within the Official View is determined by the degree to which it can be shown to involve the neurochemical mechanisms that are supposed to cause drug addiction, as if drug addiction were somehow the essential or prototypical form of addiction. See Volkow, N.D. and Wise, R.A. (2005). How Can Drug Addiction Help us Understand Obesity. Nature Reviews: Neuroscience, 8, 555-560; Frascella, J., Potenza, M.N., Brown, L.L., and Childress, A.R. (2010). Shared brain vulnerabilities open the way for nonsubstance addictions: Carving addiction at a new joint. Annals of the New York Review of Sciences, Addiction Reviews, 2, 294-315.

[170] Engdahl, F.W. (2009). Gods of Money: Wall Street and the Death of the American Century. Wiesbaden, Germany: edition.engdahl.

[171] Alexander, B.K. (2010). The Globalization of Addiction: A Study in Poverty of the Spirit. Oxford, UK: Oxford University Press, paperback edition, chaps. 14-15; Alexander, B.K. (2013, September 10). Recovery from addiction: The role of spirituality and the planet earth. Presented at Longhouse Church Vancouver. Retrieved July 4 2014 from www.globalizationofaddiction.ca/articles-speeches/274-recovery-the-role-of-spirituality-and-the-planet-earth.html

[172] A neurological basis for the adaptive function of addiction could be derived from recent research on brain hermispericity, as conceptualized by McGilchrist, I. (2009). The master and his emissary: The divided brain and the making of the western world. New Haven, Connecticut: Yale University Press

[173] J. Frascella, M.N. Potenza, L.L. Brown and A.R. Childress, "Shared brain vulnerabilities open the way for nonsubstance addictions: Carving addiction at a new joint," Annals of the New York Review of Sciences, Addiction Reviews 2 (2010): 294-315.

[174] Hoffman, J. and Froemke, S. (2007). Addiction: Why Can't They Just Stop? New York, NY: Rodale, pp. 145-147.

[175] Donald MacPherson of the Canadian Foundation for Drug Policy clarified this for me in an email conversation.