

ADDICTION, TREATMENT, AND EVIDENCE-BASED MEDICINE

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Dedication

For all the addicts who have sought help for their problems, have had their co-morbid disorders ignored, and have not received evidence-based treatments for their conditions.

Abstract

How addiction is conceived has important practical implications for how addicts are to be treated. This paper argues that we have a horrible concept of addiction and that has led to horrible treatment results. Examining this concept's history will show that its main components (especially the brain disease view and the loss of control hypotheses) were invented or assumed by social reformers about 200 years ago, and that they do not map onto the physical world in a rich and systematic fashion. Science has been used to promote these assumptions instead of ever substantively establishing them. There are treatment methods that have been shown to be effective, but these are rarely employed in standard practice. Instead, addicts are provided with interventions that have been shown to be ineffective. Continuing to offer addicts treatment modalities that do not work when there are interventions with proven efficacy, is medical malpractice.

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Abbreviations

Abbreviation	Meaning
AA	Alcoholics Anonymous
AACI	American Association for the Cure of Inebriates
ASAM	American Society of Addiction Medicine
EBM	Evidence-Based Medicine
ECA	Epidemiological Catchment Area Survey
MCA	Modern Concept of Addiction
NCADD	National Council on Alcohol and Drug Dependence
NCEA	National Council for Education on Alcohol
NCS	National Comorbidity Survey
NESARC	National Epidemiological Survey on Alcohol and Related Conditions
NIAAA	National Institute on Alcohol Abuse and Alcoholism
NIDA	National Institute on Drug Abuse
NIH	National Institute of Health
NIMH	National Institute of Mental Health
SAMHSA	Substance Abuse and Mental Health Services Administration
TEDS	Treatment Episode Data Set
TSF	Twelve Step Facilitation
WHO	World Health Organization

Introduction

Addiction and substance abuse are serious problems that have devastating costs for the individual affected, the family and friends of the addicted, the employers and the employees of those addicted, and for society at large. If addiction is a medical problem, then the treatment of those suffering with an addiction ought to involve evidence-based medicine (EBM). EBM “is the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients ... [it] means integrating individual clinical expertise with the best available external clinical evidence from systematic research.”¹ Unfortunately, few who suffer from addiction receive any kind of treatment that approximates EBM.

This was the conclusion reached by The National Centre on Addiction and Substance Abuse at Columbia University in their report *Addiction Medicine: Closing the Gap Between Science and Practice*. The methodology employed to substantiate its conclusions included: reviewing more than 7,000 publications, comprehensive analysis of five national data sets, interviews complete with suggestions from 176 leading experts covering a broad range of disciplines relevant to the report, focus groups and a national population survey of 1,303 adults concerning their attitudes and beliefs about addiction and its treatment, two New York State surveys of addiction treatment providers, an online survey of 1,142 members of professional associations involved in addiction care, an online survey of 360 individuals with a history of addiction, analyses of state and federal governments’ and professional associations’ licensing and certification requirements for treatment providers, and a case study of addiction treatment in New York State and New York City.

¹ D. L. Sackett et al., "Evidence Based Medicine: What It Is and What It Isn't," *Bmj* 312, no. 7023 (1996): 71, doi:10.1136/bmj.312.7023.71.

From this data, the centre was able to conclude that out of all those suffering from an addiction, 89.1% received no treatment at all, and of the 10.9% who did receive some form of treatment, “few receive evidence based care.”² Surprisingly, only 5.7% of referrals to treatment came from health care professionals, while 44.3% of the referrals were made by the criminal justice system.³ Of those who enter treatment, only 42% complete their treatment. Compared to the evidence-based treatment rates for other conditions (Hypertension 71.2%, Diabetes 73%, Major Depression 71.2%)⁴ the fact that only 10% of addicts receive treatment, and only a small percentage of these treatments involve evidence-based practices, is a miserable failure of the health care system.

One of the problems is that the treatment of addiction evolved out of the existing health care system. “Most primary providers of intervention and treatment for risky substance use and addiction do not have the requisite training or qualifications to implement the existing range of evidence-based practices.”⁵ The professionals on the front line treating addiction are, in broad, “not qualified to implement evidence-based practices.”⁶ They also face structural and organizational barriers to providing EBM treatment services. As a result, most health-care providers do not use evidence-based practices for the treatment of addiction.⁷

² The National Center on Addiction and Substance Abuse at Columbia University, "Addiction Medicine: Closing the Gap between Science and Practice," CASAColumbia, June 2012, 131, <http://www.casacolumbia.org/addiction-research/reports/addiction-medicine>.

³ Ibid., 132

⁴ Ibid., 133.

⁵ Ibid., 212.

⁶ Ibid., 212.

⁷ Ibid., 212.

Another problem in treating addiction is that the problem is not dealt with directly. For diabetes there exists cutting edge research and various treatment options that deal with the insulin issues concerned directly. But this is not what happens for addictions. Instead, referrals for treatment usually do not come from medical professionals (only 5%), but most often (44%) are imposed as a consequence of ill advised behaviour: DUI's, accidents, theft, spousal abuse, etc. This is not the case for medical problems like diabetes. For addiction treatment the referral is often to some kind of support services (e.g. Alcoholics Anonymous) that are usually "provided by similarly-diagnosed peers who struggle with limited resources and no medical training"⁸ i.e. support groups are incorrectly conflated with formal medical treatment. While this kind of support has assisted and saved many people who have struggled with an addiction, it is not any kind of medically based treatment and its evidence of effectiveness is largely anecdotal. Being 30 days brain tumour free is not a qualification to medically treat other people with brain tumours. Surely, no health-care professional would recommend that any other medical problem ought to be dealt with exclusively through mutual support organizations.

Another problem is that simple and cost effective treatments, such as screening for addictive issues, early interventions, and brief interventions, have demonstrable efficacy, but are rarely employed.⁹ Another effective and inexpensive treatment, pharmaceutical interventions, are similarly underemployed.¹⁰ Even when the treatment repeatedly fails for some individuals, they are offered the same treatment again and again. This is not the usual case in other fields of medicine. But perhaps the biggest

⁸ Ibid., 200.

⁹ Ibid., 200, and Chapter IV

¹⁰ Ibid., 206, 207.

problem is that “most health professionals and addiction treatment programs follow a one-size-fits-all approach to treatment.”¹¹ As a result of offering the same basic treatment to every addict instead of personalized medical treatment, co-morbid psychiatric disorders are often ignored and left untreated.¹² In Hanna Pickard’s *The Purpose of Chronic Addiction* and in Gene Heyman’s *Addiction: A Disorder of Choice*, they show that all the large scale national surveys agree (*Substance Abuse and Mental Health Services Administration* (SAMHSA), 2001; *National Epidemiological Survey on Alcohol and Related Conditions* (NESARC), 2002; *Epidemiological Catchment Area Study* (ECA), 1980-1984; *National Comorbidity Survey* (NCS), 1990-92; and *Replication*, 2001-02). Addiction, as defined by current DSM standards, peaks during the end of adolescence to the early twenties. But in almost every case though, the addiction is permanently resolved by the individual’s late twenties or early thirties without any kind of clinical treatment. These changes are attributed by both authors to addicts simply maturing out of their addictions in response to the challenges, responsibilities, and opportunities of adult life. The patients who chronically relapse are most often the ones with psychiatric and/or other co-morbid disorders. Unfortunately, as Heyman demonstrates, the chronic relapsers (the minority of addicts who report for treatment) are over-represented in the medical study of addiction, while the majority of addicts (the ones who spontaneously mature out of their addiction and do not present themselves for treatment), are under-represented in the study of addiction. The national surveys all show that addicts *do* respond to reasons i.e. the majority have not lost control. I will argue that the small minority of addicts who *do* chronically relapse have not lost control either. Instead, because of their untreated co-morbid disorders (psychiatric, social,

¹¹ Ibid., 208.

¹² Ibid., 209.

familial, employment, housing, etc.), continued drug use is a rational choice. Unless we offer such addicts hope for a better life (psychiatric care, social skills training, job skills training, marital counselling, housing assistance, etc.) they have no reason to change; continuing to treat the addiction with standardized care is very unlikely to produce the desired results.

If addiction is a medical problem, then its treatment ought to be reflective of the standards of EBM and the kind of care that is given to patients with other medical problems. Treatment ought to be tailored to fit each particular patient and should address the stage and severity of the problem, the patients overall health, past treatment history, and other individual characteristics and life circumstances. Factors that ought to be considered include: co-morbid mental health issues, women, adolescents, ethnic minorities, the homeless, the unemployed, gays, lesbians, bisexual, transgendered individuals, veterans, and individuals involved in the criminal justice system.¹³

The purpose of this paper is to demonstrate that the treatments for addiction which are commonly employed are not grounded in EBM. In 2010, 75% of treatment programs still replied that their treatment philosophy could best be described by the 12-step model.¹⁴ Consequently, this paper is especially critical of 12-step style treatments. Because Alcoholics Anonymous (AA) agrees with the mainstream view that addiction is a brain disease which causes a fundamental loss of control, I also criticize the brain disease view and the loss of control hypothesis. I do not attempt a fair and balanced review of the mainstream addiction literature, but instead favour authors who question the standard conception that addiction is a disease causing a loss of control. There is a

¹³ Ibid., 10.

¹⁴ John-Kåre Vederhus et al., "Obstacles to 12-step Group Participation as Seen by Addiction Professionals: Comparing Norway to the United States," *Journal of Substance Abuse Treatment* 39, no. 3 (2010), doi:10.1016/j.jsat.2010.06.001C

large gap between the evidence about what works for treating addiction and the practice of treating addiction.

“Nothing short of a significant overhaul in current approaches is required to bring practice in line with the evidence and with the standard of care for other public health and medical conditions. Given the prevalence of risky substance use and addiction in America and the extensive evidence on how to identify and address them, continued failure to do so raises the question of whether the insufficient care that patients with addiction usually do receive constitutes a form of *medical malpractice*.”¹⁵ [Emphasis added]

Chapter 1 will examine the history of the concept of addiction and the treatment of addicts. This focus will make it clear that many aspects of our modern concept of addiction were not established by science, but were ‘created’ by religious leaders and social reformers between about 1780-1830. These ideas were picked up by the temperance movement and eventually resulted in the prohibition of all alcohol (Volstead Act) and opiates (Harrison Act) in the United States. These pieces of legislation changed the problem of addiction from a medical issue into a legal one, and formally ended any kind of medical or state sanctioned treatment for those suffering from an addiction. Prohibition was repealed in 1933, but there was not any kind of treatment available to the addict. AA was created in 1935 and found itself in a literal treatment void; there was not an array of organizations prepared and dedicated to helping those with an addiction. Unfortunately, from an EBM perspective, I will show that most of AA’s claims were simply accepted at face value and are now maintained by some with near religious fervour. These concepts, such as the idea that addicts have lost control (being powerless over alcohol in AA lingo) are unchallenged assumptions. They were never established by science. Instead, they are 18th Century, folk-psychological, intuitive explanations of behaviour that have become codified, sacrosanct, psuedo-facts about the world. That addicts experience a loss of control over their drug taking desires began

¹⁵ Ibid., 14.

as an assumption and it still is. In fact, the national surveys previously mentioned suggest that for the majority of addicts, the assumed loss of control is false. Most addicts quit in response to normal everyday incentives i.e. they have control of their drug taking desires.

Chapter 2 will look at several of the concepts used or employed in the standard treatment of addiction: loss of control, abstinence only treatment modalities, the usefulness and nature of the coercive treatment, and the brain disease view. Are changes in brain structure and function really the necessary and sufficient conditions to classify some drug-taking behaviour as a disease? Or are the changes that occur in the brain associated with addictive behaviour less exotic than believed by supporters of the brain disease view? I will conclude that the changes that occur in the brain with repeated drug abuse are not exotic, but are similar to the changes associated with normal, everyday learning. If these changes in the brain constitute an actual disease, then any rewarding activity is a pathogen. And if addiction is a brain-disease, then “the name for this disease is learning.”¹⁶

Chapter 3 is explicitly about the evidence and the notion of equipoise (the point at which a rational and informed person has no preference between two or more available treatments). When we examine what treatments work and which do not, it becomes clear that simple, cost effective, and efficacious treatments are rarely used in standard treatment practice. However, treatments that have been shown to be ineffective and even harmful are a major part of the standard treatment of addiction. We have at least equipoise, and more likely malpractice. There is clearly a deep and profound disconnect between scientific evidence and clinical practice in the field of

¹⁶ Bennett Foddy and Julian Savulescu, "A Liberal Account of Addiction," *Philosophy, Psychiatry, & Psychology* 17, no. 1 (2010): 6, accessed May 1, 2014, doi:10.1353/ppp.0.0282

addiction. Clinicians cannot ethically continue to offer standard treatment when there are real evidence-based alternatives. What is required is a complete overhaul in our understanding of the concept of addiction and the treatment of addiction. The concept and treatment of addiction must be brought into accord with the evidence and with what would be considered appropriate standards of care for other medical problems and public health issues.¹⁷

¹⁷ Ibid., 14.

CHAPTER 1: HISTORY OF THE CONCEPT OF ADDICTION

1.1 Why the History of a Concept Matters

Examining the history of a concept helps to clarify how we came to hold a concept, and whether the concept maps onto physical reality (the external world) in a systematic and coherent manner. When we examine the history and development of concepts in other sciences like physics (say the big bang theory), we find the concept maps onto the external world in a rich, systematic, and coherent fashion; the concept is independently verified and ‘tied together’ by numerous lines of independent converging evidence. Different researchers using different methods and procedures at different times and places all come to the same answer. The big bang theory unifies disparate areas of research. This does not ‘prove’ the big bang happened, but does suggest the theory of the big bang is related (maps on) to reality in an interesting and very coherent fashion.¹⁸

This is not the case with the modern concept of addiction. It’s central premises are not supported by independent lines of converging evidence that unify disparate areas of research. Instead, we will see that the main components of the modern concept of addiction (e.g. the disease view, loss of control, necessity of treatment, abstinence only, inevitable progression) appear to have been discovered or constructed by religious leaders and social reformers between about 1780-1830. These reformers, while well-intentioned, were functioning with a limited and sometimes dangerous (e.g. bleeding) understanding of medicine, diseases, treatment, and human desires and motivations. In order to explain chronic drunkenness, a folk-psychological explanation

¹⁸ Robert P. Kirshner, *The Extravagant Universe: Exploding Stars, Dark Energy, and the Accelerating Cosmos* (Princeton, NJ: Princeton University Press, 2002), 89-90, 113-135. This gives an excellent description of the independent, unifying, and converging lines of evidence that support the big bang theory.

that excessive drinking resulted from a compulsive loss of control was invoked. But this explanation of behaviour was based on an instrumentalist moral psychology (no agent intends self-destruction),¹⁹ and an Aristotelean premise that all agents rationally pursue the good life.²⁰ Alcohol abuse is not a part of the good life and is a priori aberrant. Since no agent would voluntarily pursue anything other than the good life, and alcohol abuse is always bad, excessive drinking must be involuntary and result from a loss of control. We will see that the main components of our concept of addiction were essentially grandfathered in and assumed by many scientists but never established by science.²¹ Our understanding of the addiction concept “does not represent a scientific advance, and instead is better understood as a cultural phenomenon that fulfills functional and symbolic needs.”²² We have a current concept of addiction, and examining its history will help to illuminate how our current concept of addiction emerged.

¹⁹ A. M. Viens, "Addiction, Responsibility and Moral Psychology," *The American Journal of Bioethics* 7, no. 1 (2007): 17-20, accessed May 1, 2014, doi: 10.1080/15265160601064033.

²⁰ Aristotle and W. D. Ross, *The Nichomachean Ethics* vol. Revised by Ackrill and Urmson (London: Oxford University Press, 1986), 1, 4, 14.

²¹ Lance M. Dodes and Zachary Dodes, *The Sober Truth: Debunking the Bad Science behind 12-step Programs and the Rehab Industry* (Boston, MA: Beacon Press, 2014), 28.

²² Stanton Peele, "Addiction as a Cultural Concept," *Ann NY Acad Sci Annals of the New York Academy of Sciences* 602, no. 1 *Psychology* (1990): 206, doi:10.1111/j.1749-6632.1990.tb22740.x.; For the argument that the addiction concept is a successful construct because it serves specific purposes see Craig Reinerman, "Addiction as Accomplishment: The Discursive Construction of Disease," *Addiction Research & Theory Addict Res Theory* 13, no. 4 (2005): 307-20, doi:10.1080/16066350500077728; John Booth Davies, *The Myth of Addiction: An Application of the Psychological Theory of Attribution to Illicit Drug Use* (Chur, Switzerland: Harwood Academic Publishers, 1992); Robin Room, "The Cultural Framing of Addiction," in *Expanding Addiction: Critical Essays*, ed. Robert Granfield and Craig Reinerman (New York, NY: Routledge, 2015), 43-50; and Andrew D. Hathaway, *Drugs and Society* (Don Mills, Ontario: Oxford University Press, 2015), 162.

1.2 Definition: What Do We Mean by Addiction?

Before we begin I need to make a couple of clarifications about the way I will be using language: first, for the purposes of this study, drug addiction, alcohol addiction, alcoholism, drug dependence, alcohol dependence, or any other cognates are terms that will be used interchangeably for one and the same underlying phenomenon or condition; second, I will treat alcohol as just another drug (of which there are many). In fact, alcohol is a particularly nasty, devastating, and destructive drug, and so, alcohol will be considered one of the drugs instead of being in a separate category from drugs.

Obtaining an uncontested definition of a concept has important implications for how that concept is employed. How addiction is conceived matters because it has important consequences on the treatment of addicts. If addicts experience a fundamental loss of control, then it seems reasonable to suppose that manipulation and coercion could be useful treatment tools: infringe on an addict's autonomy so that she can get her 'real' autonomy back. Defining addiction is difficult and there is a lot of variation in current definitions.²³ The "concept has been subject of much debate."²⁴ For instance, is addiction a disease? Allen Leshner, the director of the National Institute on Drug Addiction (NIDA) from 1994-2001, in *Addiction is a Brain Disease, and it Matters*, writes that addiction is a disease because drug use damages the brain, and that causes addicts to continue to use despite negative consequences. Accordingly, addiction counts as a disease simply because it involves (by definition) the continuation of behaviour (drug use) that results in harm and/or suffering for the addict (and/or others).

²³ Robert West and Jamie Brown, *Theory of Addiction*, Second ed. (Chichester, West Sussex, UK: John Wiley & Sons, 2013), 9-36.

²⁴ Steve Sussman and Alan N. Sussman, "Considering the Definition of Addiction," *International Journal of Environmental Research and Public Health IJERPH* 8, no. 12 (2011): 4025, doi:10.3390/ijerph8104025.

But Stanton Peele, a thirty year critic of the standard concept of addiction, in *Diseasing of America, Addiction as a Cultural Concept, The Meaning of Addiction*, and elsewhere maintains that addiction is not any kind of disease. The second chapter will address the brain disease theory of addiction head on, and conclude that addiction is not a disease in any normal sense of the word. Instead, what some neuroscientists and others have called a disease is just a case of normal, though extreme, learning.

Other aspects of the concept (loss of control, genetic predisposition, inevitable progression, abstinence only treatment, etc.) are similarly contentious. So, it is necessary to define what I will mean by “the modern concept of addiction” (hereafter the MCA). I realize that my proposed definition of addiction would not be accepted by every clinician or researcher. The MCA has two necessary and sufficient criteria which are the core components of the mainstream understanding of addiction. Although still contentious, they are agreed upon by most clinicians, neuroscientists, and philosophers. The first is that addicts experience a fundamental loss of control over their drug-taking desires. Addicts, after careful reflection, would prefer not to use drugs but they cannot

stop.²⁵ The second component is the disease view, which is now the “prevailing view among researchers, clinicians and the media. In clinical texts and articles, addiction is introduced as a ‘chronic illness’ that should be classified with diseases like diabetes and asthma.”²⁶ NIDA’s media guide states that

²⁵ See Andreas Heinz et al., "Alcohol Craving and Relapse Prediction: Imaging Studies," in *Advances in the Neuroscience of Addiction*, ed. Cynthia Kuhn and George F. Koob (Boca Raton, FL: CRC Press, 2010), 155; Stanton Peele, *Diseasing of America: How We Allowed Recovery Zealots and the Treatment Industry to Convince Us We Are out of Control*, Paperback ed. (New York, N.Y.: Lexington Books, 1995), 55; Davies, *The Myth of Addiction*, 45; American Psychiatric Association, "DSM-IV," 1994, under "Criteria For Substance Dependence," 181, accessed June 01, 2015, <http://www.terapiacognitiva.eu/dwl/dsm5/DSM-IV.pdf>; Carlton K. Erickson, *The Science of Addiction: From Neurobiology to Treatment* (New York, NY: W.W. Norton &, 2007), 5-9; George F. Koob and Michel Le Moal, "Neurobiological Mechanisms for Opponent Motivational Processes in Addiction," in *The Neurobiology of Addiction: New Vistas*, ed. Trevor W. Robbins, Barry J. Everitt, and David J. Nutt (Oxford: Oxford Univ. Press, 2010), 7; Barry J. Everitt et al., "Neural Mechanisms Underlying the Vulnerability to Develop Compulsive Drug-seeking Habits and Addiction," in *The Neurobiology of Addiction: New Vistas*, ed. Trevor W. Robbins, Barry J. Everitt, and David J. Nutt (Oxford: Oxford Univ. Press, 2010), 25; Terry E. Robinson and Kent C. Berridge, "The Incentive-sensitization Theory of Addiction: Some Current Issues," in *The Neurobiology of Addiction: New Vistas*, ed. Trevor W. Robbins, Barry J. Everitt, and David J. Nutt (Oxford: Oxford Univ. Press, 2010), 45; Timothy Schroeder and Nomy Arpaly, "Addiction and Blameworthiness," in *Addiction and Self-control: Perspectives from Philosophy, Psychology, and Neuroscience*, ed. Neil Levy (New York, NY: O, 2013), 219; Harry G. Frankfurt, "Freedom of the Will and the Concept of a Person," *The Journal of Philosophy* 68, no. 1 (January 14, 1971): 16, <http://www.jstor.org/stable/10.2307/2024717?ref=no-x-route:fef6cc9116d9dec23080e808b613f034>.; Owen Flanagan, "Phenomenal Authority: The Epistemic Authority of Alcoholics Anonymous," in *Addiction and Self-control: Perspectives from Philosophy, Psychology, and Neuroscience*, ed. Neil Levy (New York, NY: Oxford University Press, 2013), 71, 72, 76; Richard Holton and Kent Berridge, "Addiction Between Compulsion and Choice," in *Addiction and Self-control: Perspectives from Philosophy, Psychology, and Neuroscience*, ed. Neil Levy (New York, NY: Oxford University Press, 2013), 239-242; Steven E. Hyman, "The Neurobiology of Addiction: Implications for Voluntary Control of Behavior," *American Journal of Bioethics*, 2011, 8-11, doi:10.1080/15265160601063969; A. I. Leshner, "Addiction Is a Brain Disease, and It Matters," *Science* 278, no. 5335 (1997): 45-47, doi:10.1126/science.278.5335.45; and Neil Levy, "Addiction and Compulsion," in *A Companion to the Philosophy of Action*, ed. Timothy O'Connor and Constantine Sandis (Chichester, West Sussex, United Kingdom: Wiley-Blackwell, 2010), 267.

²⁶ Gene M. Heyman, *Addiction: A Disorder of Choice* (Cambridge, MA: Harvard University Press, 2009), 17.

Addiction is defined as a chronic, relapsing brain disease that is characterized by compulsive drug seeking and use, despite harmful consequences. It is considered a brain disease because drugs change the brain; they change its structure and how it works. These brain changes can be long lasting and can lead to many harmful, often self-destructive, behaviours.²⁷

Almost everyone agrees that addiction is a disease *and* that addiction involves a loss of control over drug-taking desires; and so, I will define these two characteristics as being both necessary and sufficient to constitute the core of the MCA. However, these two components can be held together with a number of other ideas about addiction that are neither necessary nor sufficient, but merely part of a penumbra of possible versions of the MCA. I will begin with other aspects of the MCA that are the least disputed and progress to parts of the concept that are more contentious and less accepted.

Generally accepted components of the MCA include the following: a segment of the population has a genetic predisposition or susceptibility to becoming addicted and can *never* use certain drugs in a safe and voluntary manner.²⁸ Addiction is characterized by the symptoms of tolerance, craving, and withdrawal.²⁹ Because drug addiction is a chronic, relapsing brain disease, an untreated addict will only grow worse and the

²⁷ United States, NIDA, *The Science of Drug Abuse and Addiction: The Basics*, September 2014, under *What Is Drug Addiction*, <https://www.drugabuse.gov/publications/media-guide/science-drug-abuse-addiction-basics>.

²⁸ Rachel P. Winograd and Kenneth J. Sher, *Binge Drinking and Alcohol Misuse Among College Students and Young Adults* (Boston, MA: Hogrefe Publishing, 2015), 26-27. The authors discuss “pharmacological vulnerability models” of alcohol abuse. Different people come to the table with different sensitivities to becoming a problem drinker; See Bruce K. Alexander, “The Disease and Adaptive Models of Addiction: A Framework Evaluation,” in *Visions of Addiction: Major Contemporary Perspectives on Addiction and Alcoholism*, ed. Stanton Peele (Lexington, MA: Lexington Books, 1988), 46. Alexander writes that “in contemporary forms of the disease model it is attributed either to a genetic predisposition, psychological damage that occurred during childhood, or both.”

²⁹ United States, NIDA, *The Science of Drug Abuse and Addiction: The Basics* under *How Are Drug Disorders Categorized*, The *DSM-V* lists eleven criteria for drug dependence, including tolerance, craving, and withdrawal.

condition can often result in death.³⁰ The idea that addiction is a disease involving loss of control over drug taking desires is not much disputed. Neither are the idea of a genetic predisposition or the notion that addiction results in tolerance, craving, and withdrawal. Because it is a brain disease, treatment is often presented and believed to be the addict's only hope for recovery i.e. addicts do not recover on their own without treatment, just as diabetics do not recover without insulin.

The remaining characteristics are not in any way essential to holding a version of the MCA, but are still frequently held and many of them are associated with Alcoholics Anonymous (AA). As we progress through the history of the concept of addiction, we will see that AA has had a tremendous impact on our understanding of addiction. However, AA's influence has largely been the result of a public relations coup, and had nothing to do with science, efficacy, or evidence.³¹ Nonetheless, treatment based on AA principles is often thought of and recommended as the most effective way to treat an addiction.³² In this approach, treatment is intended to help the addict realize that her drug-taking

³⁰ David E. Smith, "Editor's Note: The Process Addictions and the New ASAM Definition of Addiction," *Journal of Psychoactive Drugs* 44, no. 1 (2012): Abstract, doi 10.1080/02791072.2012.662105.

³¹ See Stanton Peele, *Addiction as a Cultural Concept*, 205, 209. He argues that the formalization of the MCA does not represent a scientific advance. Instead, it was largely aided by an "effective campaign led by Marty Mann" (one of AA's first members) and the NCADD she founded in 1944.

³² See Lance M. Dodes and Zachary Dodes, *The Sober Truth: Debunking the Bad Science behind 12-step Programs and the Rehab Industry* (Boston, MA: Beacon Press, 2014), 24-28. They have an excellent description of AA's ideological influence on the treatment of all kinds of addictions; See Charles Bufe, *Alcoholics Anonymous: Cult or Cure?*, 2nd ed. (San Francisco: See Sharp Press, 1998), 105-128, for an excellent description of AA's influence on concepts of addiction and treatment of addiction in society at large; See Owen Flanagan, *The Epistemic Dominance of Alcoholics Anonymous*, 67-92. He shows that AA's ideologies and treatment methods have come to dominate the treatment industry.

desires are inauthentic and conflict with her true, actual desires.³³ Total abstinence is the only legitimate way to treat an addiction.³⁴ Treatment (carried out as prescribed) always works, and if someone does not succeed after being treated, it is because they failed at treatment i.e. the treatment never fails the person.³⁵ AA style treatment is often presented as a “modern medical miracle ... everyone who seriously embarks on an AA program will become sober.”³⁶ If an addict does not succeed after being treated, “it is therefore reasonable to blame the alcoholic or drug addict for his or her failure to commit to recovery.”³⁷ Because addicts have lost control, coercion is seen as a justifiable and often necessary part of treatment.³⁸ In broad, the concept is unfalsifiable: if a putative

³³ See Robert G. Newman, "Involuntary Treatment of Drug Addiction," in *Addiction*, ed. Peter G. Bourne (New York: Academic Press, 1974), 114. Newman claims the “[c]ompulsory treatment of addiction has been justified ... on the grounds that it is in the interests of the unwilling addicts themselves.”; See Harry Frankfurt, *Freedom of the Will*, 5-20. An “unwilling addict” has a desire for the drug, but does not desire the drug taking desire i.e. the addicts drug-taking desires are inauthentic.

³⁴ See Aubrey J. Yates, "The Natural History of Heroin Addiction," in *Addiction Controversies*, ed. David M. Warburton (Chur: Harwood Academic Publ., 1990), 9. Yates reasons that controlled heroin use is impossible. Because it is so dangerous, the only legitimate treatment option is total, lifetime abstinence.

³⁵ United States, NIDA, *The Science of Drug Abuse and Addiction: The Basics*, under *Does Relapse to Drug Use Mean Treatment Has Failed?*, for a description of how, no matter the outcome, treatment always works.

³⁶ Stanton Peele, *Diseasing of America*, 73.

³⁷ Andrew Hathaway, *Drugs and Society*, 162.

³⁸ See Owen Flanagan, *The Epistemic Authority of Alcoholics Anonymous*, 67-92. It is argued that one reason that AA treatment works is because the AA group uses its power to coerce participants into thinking, acting, and interpreting their lives according to the dictates of AA’s ideology; See Robert Newman, *Involuntary Treatment of Drug Addiction*, 113-127, for a discussion of coercive treatment methods and their justifications; See Bennett Foddy, "Addiction and Its Sciences-philosophy," *Addiction* 106, no. 1 (October 19, 2010): 26, doi:10.1111/j.1360-0443.2010.03158.x. The disease view is said to turn drug addiction into an external event that happens against the addict’s own will. This justifies “forcing them to undergo treatment without worrying about infringing upon their autonomy.”

addict's behaviour contradicts any of these tenets, then either they must not have been addicted in the first place or else they have still somehow lost control.³⁹ It is also widely believed that any researcher or observer who disputes any of the above listed beliefs about addiction is sentencing the addict to a certain death.⁴⁰ Finally, anyone who disputes that alcoholism is a disease causing loss of control, and instead maintains that addicts are responsible for their actions "is considered ignorant of modern scientific advances in the field of alcoholism and addiction."⁴¹ It is possible to hold a concept of addiction without subscribing to every tenet, but I will call the two necessary and sufficient conditions (the disease view and loss of control) the MCA. These can be, and frequently are, combined with some subset of the other premises just mentioned. We will see that the above list of components is a part of the standard treatment of addicts and largely a historical construction that occurred at a specific time and place.

In this paper, I will argue that the MCA is fatally flawed because its components (especially the disease view, loss of control, and standard treatment including

³⁹ See Gene Heyman, *Addiction: A Disorder of Choice*, 80-82. The finding that addicts in treatment were more likely to relapse than those who were not treated often gets the response that those in treatment must have been more addicted. But "the available evidence fails to support a pharmacological explanation why addicts in treatment are less likely to quit using drugs."; See Hanna Pickard and Steve Pearce, "Addiction in Context. Philosophical Lessons from a Personality Disorder Clinic," in *Addiction and Self-control: Perspectives from Philosophy, Psychology, and Neuroscience*, ed. Neil Levy (New York, NY: Oxford University Press, 2013), 172. This is a good description of the mental gymnastics performed by Alfred Mele and Neil Levy in order to maintain the concept of loss of control in the face of spontaneous remission statistics. See Stanton Peele, *Addiction as a Cultural Concept*, 209. After reviewing the evidence that the addiction concept was created between about 1780-1830, Peele analyses the claim that addiction always existed historically, but was unrecognized. He concludes that such claims are 1) tautologous (addiction was unrecognized because it was unrecognized); and 2) preposterous (people far more familiar than we are with the consequences of using large amounts of drugs were not as aware as we are of their inevitable effects).

⁴⁰ Stanton Peele, *The Diseasing of America*, 55.

⁴¹ Stanton Peele, *Addiction as a Cultural Concept*, 218.

abstinence only and coercion) are largely socially constructed and not based on any substantial evidence. The concept is built around a host of unsupported premises, racial prejudices, and *ad hoc* explanations. How addiction is conceived matters because it affects how addicts are to be treated. The modern concept views addictive desires and behaviour as distinct, and very different from, normal, everyday human desires and action. I will argue the opposite: addictive desires and behaviour are not distinguishable from normal desires and behaviour. Further, addiction is not dependent on the pharmacological action of any specific drug: I argue that, contrary to the MCA, no drug has the power to cast a magical spell over its victim which would circumvent her autonomy. Instead,

addiction is best understood as an individual's adjustment, albeit a self-defeating one, to his or her environment. It represents an habitual style of coping, albeit one that the individual is capable of modifying with changing psychological and life circumstances.⁴²

Addiction to drugs is much like other 'bad' habits making it less exotic than asserted by the MCA. Rather than being a set of behaviours that people *do*, the current concept conceives of addiction as a process that "*happens to people*; that is, as something imposed from outside by the inescapable pharmacological properties of an alien substance."⁴³ These properties have come to replace volition and choice under the current model. This is a fundamentally wrongheaded way to begin treatment. Telling addicts that they have a brain disease which causes loss of control is not helpful. Addicts do not need to be told that they are "powerless," they need to be empowered;

⁴² Stanton Peele, *The Meaning of Addiction: An Unconventional View* (San Francisco, CA: Jossey-Bass Publishers, 1998), 2.

⁴³ John Booth Davies, *The Myth of Addiction*, vii.

empowered to make a very difficult, but not impossible, choice.⁴⁴ The assumption that an addict has lost control is a very counterproductive way to begin any kind of treatment.

Several comments on different interpretations or views of the MCA need to be made before proceeding. First, the disease view is currently favoured among neuroscientists who take addictive behaviour to be the result of drugs of abuse causing physical changes in the brain (these changes are characteristically interpreted as demonstrating that the brain is damaged, thus imposing a normative interpretation of what is, at root, a purely descriptive finding), and addictive behaviour is said to be more like a reflex than a normal rational choice.⁴⁵ The brain disease theory has been tirelessly promoted by the leaders of NIDA (Allen Leshner (1997, 1999) and Nora Volkow (2004, 2011, 2016)), the National Institute on Mental Health (NIMH) (Steven Hyman (2005, 2011)), and the National Institute on Alcohol Abuse and Alcoholism (NIAAA) (George Koob (1997, 2010)). In fact, NIDA's biggest achievement is probably the codification (using neurological research) of the central components of the MCA. "The NIDA scientists have been tremendously successful from a public relations standpoint."⁴⁶ NIDA's bold claim that addiction is a brain disease has been repeated and cited ad nauseam. Many researchers and clinicians believe that neuroscientific evidence has 'proven' that addiction is a brain disease. The second view is favoured by philosophers (Harry Frankfurt (1971), R. Jay Wallace (1999), Louis Charland (2002), and Timothy

⁴⁴ See Lance Dodes, *The Sober Truth*, 136. Dodes has treated addicts for over thirty years. He says the emotion that results in addiction is a sense of helplessness. Asserting that they have lost control is "diametrically opposed to what they need to do: feel empowered." See Marc D. Lewis, *The Biology of Desire: Why Addiction Is Not a Disease* (Canada: Doubleday Canada, 2015), 16; "most former addicts claim that empowerment, not powerlessness, was essential" to recovery."

⁴⁵ A.I. Leshner, *Addiction is a Brain Disease and it Matters*, 45-47.

⁴⁶ Lance Dodes, *The Sober Truth*, 86.

Schroeder and Nomy Arpaly (2013)) who have come to see addiction as a failure of will power, and hold a will power view, but that failure is underwritten by physiological changes that occur in the brain's of addicts just as was the case with the disease view.

One more take on the MCA needs to be discussed and that is the view held by the average man in the street, the lay view. In addiction research, the lay view is “the elephant in the corner.”⁴⁷ The lay view holds that people use drugs of abuse addictively because they are morally bankrupt pleasure seekers, who childishly value the fulfilment of immediate hedonistic pleasure over normal (and normatively required) activities such as going to work. The lay view reflects the sense of moral outrage which motivates personal and political opposition to harm reduction strategies such as clean needle exchanges and safe injection sites. Under either the disease view or the will power view, some kind of treatment (medical or psychological) is possible, but treatment options on the lay view appear to be only total abstinence (just say no) or punishment (lock up the hedonists and throw away the key). The lay view is a moralistic approach; the source of the problem is bad people who make bad choices. This view typically demands that addicts behave as they ought to, or face harsh punishment. As such, “the lay view is not discussed in the addiction literature.”⁴⁸ Nonetheless, most scientists and medical doctors, also being just regular, average, people in the street, still have this negative perspective on addicts in the back of their minds,⁴⁹ and this lay conception often, I will argue, underlies and distorts their understanding of the disease or will power views.

⁴⁷ Bennet Foddy and Julian Savulescu, *A Liberal Account of Addiction*, 2.

⁴⁸ Bennet Foddy and Julian Savulescu, *A Liberal Account of Addiction*, 3.

⁴⁹ See Hans Olav Melberg, Edmund Henden, and Olav Gjelsvik, "Addiction and Responsibility: A Survey of Opinions," *Inquiry* 56, no. 5 (2013): 559, accessed May 18, 2015, doi:10.1080/0020174x.2013.806143. They found “in a survey of UK doctors, that 10% of general practitioners were of the opinion that addictive drug users ‘deserve whatever misfortune befalls them.’”

1.3 An Introduction to the Concept of Addiction

Historically speaking, the idea that addiction is a disease which results in some kind of loss of control over drug-taking desires was first presented by religious leaders and social reformers between 1780-1830. The same is the case with other aspects of the MCA. (Genetic predisposition, total abstinence, inevitable progression, and within twenty years most of the treatment methods). Before this time, people had a very different view of drugs and alcohol and their relationship to them. The concept of addiction has been variously described by different authors as “invented or discovered” (Harry G. Levine, 1978, 1984), “birthed” (William L. White, 2000), “a cultural concept” (Stanton Peele, 1990), “a myth” (John Booth Davies, 1992), “discursively constructed” (Craig Reinerman, 2005), and “culturally framed”, a “mystery”, and a modern, “secularized and rationalized form” of demonic possession (Robin Room, 2015).

The modern concept of addiction is strongly held, as if it had been discovered and is well-supported by modern science, but this is not the case. Instead, all of the criteria of the MCA were suggested as explanations and provided a rationale for treatments of addictive behaviour between about 1780 and 1830. The MCA is the product of a long history that arose and was accepted independent of scientific research.⁵⁰ Instead, the view that addiction is a disease which causes loss of control was a folk-psychological explanation of human behaviour at best, and was first posited a little over 200 years ago. The science which is said to support the concept only makes sense in light of the following argument.

In Western societies there is a very strong taboo against the kind of wanton, pleasure seeking hedonism which is the base understanding of the lay view of addiction.

⁵⁰ Stanton Peele, *Addiction as a Cultural Concept*, 205.

Those who break this taboo are seen as morally bad; a more naturalistic and scientific version of this moralistic response shifts from the explicit normativity of ‘morally bad’ behaviour to the implicit normativity of disease talk. That is because taboos delineate what is rational and sane behaviour, and what is not. Injecting oneself with heroin eight times a day breaks this taboo against hedonism, and so, is automatically irrational and a priori aberrant. A person who broke the taboo against putting a toddler in the blender feet first to watch her expression, would be similarly viewed as irrational, out of control, and maybe even diseased too. The lay view colours the scientific interpretation of the disease view. The disease view is informed by a mountain of sound empirical research in neuroscience and neuropharmacology. The problem is not the methodology of these studies, but how they are framed and interpreted. The observed changes in brain function could be interpreted as a “consequence of normal learning rather from disease ... in fact, [n]euroscientific findings actually support this intuition—once neuroscience steps away from the funding priorities set by the medical mainstream (e.g. NIDA).”⁵¹

Patricia Churchland noted that “[i]f the psychological (functional) taxonomy is ill-defined, then the search for neural substrates for those functions will be correspondingly ill-defined.”⁵² This is what has happened with the scientific study of addiction. Because the functional taxonomy is flawed (pleasure seeking hedonists who catch a disease causing loss of control) the neuroscientific account is also flawed; it steps beyond the import of the observations by invoking the language of disease. “The source of this flaw lies in an implicit assumption that addictive behaviours are abnormal.”⁵³ Now that

⁵¹ Marc D. Lewis, *The Biology of Desire: Why Addiction Is Not a Disease*, 8, 10.

⁵² Patricia Smith Churchland, *Neurophilosophy: Towards a Unified Theory of the Science of the Mind-Brain* (Cambridge Mass: MIT Press, 1986), 152.

⁵³ See Bennet Foddy and Julian Savulescu, *A Liberal Account of Addiction*, 3. The argument presented in this paragraph is taken directly from Foddy and Savulescu.

addiction is classified as abnormal, every neural process found to be associated with an addiction is also interpreted as abnormal and unique to addictive processes. These exotic finds are said to support and explain exotic assumptions including the disease view and the loss of control hypotheses. The problem is not the evidence, it is how the evidence is interpreted. When shooting up with heroin eight times a day is taken to be a priori wrong and abnormal, it is an easy next step to label any changes in brain structure associated with addiction to heroin as damage, and even a disease. A purely descriptive finding (drugs change the brain) is normatively framed (the changes are damage and evidence of a disease).

Science did not discover the modern concept. Instead, we will see that science has been used to promote the concept, in spite of the fact that the key elements (loss of control, tolerance, craving, and withdrawal, the disease view, abstinence only treatment, inevitable progression, etc.) have been repeatedly disproven: these are not the necessary consequences, or underlying causes, of overusing dangerous drugs such as alcohol and heroin. After examining the origin of the concept of addiction, we will review the scientific evidence and show that it does not support the key claims of the MCA.

The concept of addiction has a long history, but prior to the end of the 18th century what we now call addiction was simply thought of as a bad habit. Those using the term did not make any distinction between addiction to opiates or addiction to something more innocuous like sugar plums. To be addicted only meant "its a bad habit."⁵⁴ In the early 18th century, to be addicted to alcohol or gambling meant only that one had the habit of drinking or gambling frequently, and not that one drank or gambled

⁵⁴ Glen Sonnedecker, "Emergence and Concept of the Addiction Problem," in *Narcotic Drug Addiction Problems: Proceedings of the Symposium on the History of Narcotic Drug Addiction Problems*, March 27/28. 1958, Bethesda, Md., ed. Robert B. Livingston (Bethesda, MD: U.S. Dep. of Health, Education, and Welfare, 1963), 18.

due to a compulsion which inevitably forced one, say, to lose the family farm. The idea of an addiction as a compulsion, which causes an agent to act contrary to her better judgement, is new. The idea that this addictive compulsion is some kind of disease is also new. Prior to this time (1780), people did not talk about opiates or alcohol, and their relationship to them, in terms of compulsion or by appeal to talk of disease. The historical development of the concept of addiction is inextricably tied to the consumption of two substances: opiates and alcohol. I will consider opiates first and then turn to alcohol.

1.4 Opiates

Opium has been consumed by humans since at least the neolithic period (4500-2600 b.c.). Some of the earliest writings found contain reference to the medicinal value of opium. Ancient Greek and Egyptian writings always portrayed opium in a positive light, and emphasize its ability to relieve pain and sickness. Greek and Roman writers frequently warned against the evils that result from excessive drinking, but did not make similar claims about opium; apparently, “they had nothing bad to say about it.”⁵⁵ Opiate withdrawal and cravings for the drug were well known properties but the idea that someone could be compulsively addicted to opiates was foreign. It was not believed that opium users used opium because they had lost control and were going against their better judgement. Morphine addiction was first described as a disease by Dr. Edward

⁵⁵ Gene Heyman, *Addiction: A Disorder of Choice*, 23.

Levenstein in 1877.⁵⁶ Nonetheless, he still thought addiction was the same thing as other human passions for things like food, money, or sex.⁵⁷

The use of opiates was legal in the 19th century, and the popular patent medicines paregoric and laudanum both contained large amounts of opiates. Two technological developments, the isolation of morphine from opium and hypodermic needles, enabled doctors to prescribe and the public to consume massive amounts of this drug, but there is little evidence this produced any real problem of opiate addiction.⁵⁸ Only the smoking of opium by Chinese immigrants was seen as a serious social problem, and this brought the issue of racial tensions into the concept of addiction. An important, ongoing issue has been that 'our' (white) drugs (alcohol, tobacco) are fine (though they can be abused), while 'their' (Chinese, Mexican) drugs (opium, marijuana) are inherently dangerous. In fact, 'they' (the other races) are already dangerous, and the drugs they use make them even more dangerous.

The concept of opiate addiction changed from being seen first as a misfortune, to being viewed next as a vice, and finally, as suggested by T.D. Crothers in 1893, it was taken to be a physical disease.⁵⁹ At the end of the nineteenth century, Norman Kerr,

⁵⁶ Michael Farrel and Emily Finch, "Aspects of Drug Use and Drug Dependence," in *Drugs of Abuse and Addiction: Neuralbehavioural Toxicology*, ed. R.J.M. Niesink, R.M.A. Jaspers, L.M.W. Kornet, and J.M. Van Ree (Boca Raton, FL: CRC Press LLC, 1999), 5, accessed April 15, 2015, <https://books.google.ca/books?id=XR00IS67vuUC&pg=PA5&lpg=PA5&dq=Dr.+levenstein+addiction&source=bl&ots=u7AjreXVsg&sig=au2r8ISkNhjt2H0u477JuL02Qg&hl=en&sa=X&ei=SnM2VciQKsX8oATDyoGYCw&ved=0CB0Q6>.

⁵⁷ Virginia Berridge and Griffith Edwards, *Opium and the People: Opiate Use in Nineteenth-century England* (New York: St. Martins, 1981), 142-143, accessed April 1, 2015, <http://druglibrary.eu/library/books/opiumpeople/opiumpeople.pdf>.

⁵⁸ *Ibid.*, 149.

⁵⁹ William L. White, *Slaying the Dragon: The History of Addiction Treatment and Recovery in America* (Bloomington, IL: Chestnut Health Systems/Lighthouse Institute, 1998), 111.

who was the president of the Society for the Study of Inebriety, suggested a model where the abuse of opium and alcohol was connected by a similar disease process.⁶⁰ However, the changing notion of addiction was applied differently to the different races. The most common users of opiates tended to be white, middle class women, but public awareness of the opium problem only came about when its use was linked to immigrant Chinese use of opium in smoking dens. The problem was 'realized' in connection with the emerging social anxiety about Asian immigration. Thus, the first stereotypical portrayal of a 'dope fiend' who had lost control was racially motivated, and "injected the issue of racism into the public perception of opiate use"⁶¹ and addiction. Taking laudanum or injecting morphine, which was the normal pattern for middle-class white women, was labelled a disease, but "the smoking of opium — a pattern associated with the Chinese — was consistently labeled a vice."⁶²

The passage of the Harrison Act in 1914 made opiates and the medical maintenance of heroin addicts by physicians illegal. The alleged purpose of the act was to protect the public from dangerous drugs, but the motivations ensuring its passage were actually racially motivated political concerns.⁶³ The use of opiates by white middle class Americans was prolific, but their use was not ever considered problematic until large numbers of Chinese immigrated to the U.S. in the late 19th century. The Chinese did have the habit of smoking opium, but they were still considered to be good, hard

⁶⁰ Glen Walters, *The Addiction Concept*, 4.

⁶¹William W. White, "Addiction as a Disease: The Birth of a Concept," *Williamwhitepapers*, 2000, under *Part II, The Addiction-Disease concept: Its Rise and Fall in the 19th Century,* 8, accessed April 10, 2015, <http://www.williamwhitepapers.com/pr/2000HistoryoftheDiseaseConceptSeries.pdf>.

⁶² Ibid., 8; See Gene Heyman, *Addiction: A Disorder of Choice*, 8. Here Heyman says that "[p]hysicians attended opium eaters; law enforcement officials dealt with opium smokers ... These distinctions were institutionalized in the Harrison Act of 1914."

⁶³ Glen Walters, *The Addiction Concept*, 4.

working employees, and were generally law-abiding citizens.⁶⁴ The problem of opiate addiction did not become a public, political issue until after large numbers of Chinese arrived. The actual reason for making opiates illegal was a “racial hatred borne out of economic competition.”⁶⁵

In the 1880’s, physicians treating opiate addicts were using language such as ‘the drug vice’ and ‘the dreadful habit’, while simultaneously describing addicts whose overuse of drugs had resulted in them ‘catching’ the disease of addiction.⁶⁶ Despite this mixture of moral and medical concepts, the disease of ‘morphinism’ began to make its way into much of the medical literature.⁶⁷ Nonetheless, some physicians objected to this disease concept of opiate addiction. For instance, Dr. C. W. Earle of Chicago said,

“It is becoming altogether too customary in these days to speak of vice as disease ... that the responsibility of taking the opium or whiskey ... is to be excused and called a disease. I am not willing for one moment to admit, and I propose to fight this pernicious doctrine as long as is necessary.”⁶⁸

During the 20th century, the concept of addiction evolved, and the dangers of addiction came to be associated with a host of illicit drugs. In 1957, the World Health Organization attempted to define and legitimize the concept, but did so in terms of stereotypical behaviours: “an overpowering desire or need (compulsion) to continue taking the drug and to obtain it by any means’ (WHO Expert Committee on Mental Health 1957)”⁶⁹ This behavioural loss of control was then linked to symptoms which

⁶⁴ Thomas S. Szasz, "The Ethics of Addiction," in *The American Journal of Psychiatry* 128, no. 5 (November 1971): 541-546, accessed February 1, 2015, <http://dx.doi.org/10.1176/ajp.128.5.541>.

⁶⁵ Glen Walters, *The Addiction Concept*, 4.

⁶⁶ William W. White, *Addiction as a Disease: The Birth of a Concept*, under *Part II,* 9.

⁶⁷ *Ibid.*, 9.

⁶⁸ *Ibid.*, 8-9.

⁶⁹ Stanton Peele, *The Meaning of Addiction*, 18.

were thought to be based purely on biology and physiology: tolerance, craving, and withdrawal. But tolerance, craving, and withdrawal are not identified by physical measurements obtained by studying physiology. Instead, they are highly variable factors which are derived by observing behaviour. In the case of withdrawal from and craving for opiates, researchers have been surprised by how variable the symptoms can be—they can be quite mild and even non-existent.⁷⁰ These observations suggest social and psychological factors play a role in the experience of addiction, and that any tenable explanation of these behaviours cannot be restricted to a chemical's interaction with a subject's biology.

The evidence showing that addictive behaviours, such as craving and withdrawal, were not invariable biochemical responses might be why WHO altered its definition in 1964. The term addiction was dropped and was replaced with the term “dependence,” but the dependence could take two forms: psychic or physical. The Expert Committee on Addiction-Producing Drugs said,

“Physical dependence is an inevitable result of the pharmacological action of some drugs with sufficient amount and time of administration. Psychic dependence, while also related to pharmacological action, is more particularly a manifestation of the individual's reaction to the effects of a specific drug and varies with the individual as well as the drug ... [and] is the most powerful of all factors involved in chronic intoxication with psychotropic drugs ... psychic dependence is ascertained by 'how far the use of drugs appears (1) to be an

⁷⁰ See Norman E. Zinberg, "Heroin Use in Vietnam and the United States: A Contrast and a Critique," *Archives of General Psychiatry* 26, no. 5 (1972): 486-488, doi:10.1001/archpsyc.1972.01750230096019. He found that severe withdrawal from opiates was not an invariable response; often, it is quite mild or does not occur at all; See Lee N. Robins et al., "Vietnam Veterans Three Years after Vietnam: How Our Study Changed Our View of Heroin," *American Journal on Addictions* 19, no. 3 (2010): 206, 207, doi: 10.1111/j.1521-0391.2010.00046.x. They found that the stereotype of the heroin addict with a “monomaniacal” craving for the drug did not exist in their sample. Also, heroin addicts are supposed to be bothered by cravings long after withdrawal was over. But “it seems that prolonged craving is quite a rare residual effect of heroin addiction.”

important life organizing factor and (2) to take precedence over the use of other coping mechanisms.”⁷¹

The concept of psychic dependence enabled the WHO to continue the trend of labelling not just opiates, but all illegal drugs as dangerous. Drugs which were previously believed to be non-addictive such as marijuana, peyote, LSD, and psilocybin were included with alcohol, amphetamines, cocaine, and opiates as substances which all cause psychic dependence by two WHO pharmacologists, D.C. Cameron and J. F. Kramer, in 1975.⁷² Missing from the list were legal substances such as caffeine, nicotine, benzedrine, benzodiazepines, sleeping pills, pain pills, tranquilizers etc. It is not clear what the medical purpose of this concept is, because it appears to have been applied only to substances (other than alcohol) which are illegal or not socially accepted. It seems that legal drugs (except perhaps alcohol) were not said to cause psychic dependence, while illegal drugs always were. “Clearly, the WHO committee wished to discourage certain types of drug use and dressed up this aim in scientific terminology.”⁷³

It seems that the WHO must have also realized the limitations and the applicability of the concept of addiction, but its steadfast retention of the concept of physical and psychic dependence reveals that it hopes for an ultimately unattainable, I believe, scientific achievement: the isolation of a purely physiological process, caused by the necessary pharmacological action of abusable drugs, that would give a complete description of the range of behaviours that necessarily result from the overconsumption of dangerous drugs. The WHO is trying to have its cake and eat it too. The dropping of

⁷¹ *The Meaning of Addiction*, Stanton Peele, chapter 1, p. 20.

⁷² D. C. Cameron, J. F. Kramer, and World Health Organization, "A Manual on Drug Dependence : Compiled on the Basis of Reports of WHO Expert Groups and Other WHO Publications," *WHO IRIS*, 1975, under *Types of Drug Dependence: Clinical Syndromes*, accessed May 19, 2016, <http://apps.who.int/iris/handle/10665/40384>.

⁷³ Stanton Peele, *The Meaning of Addiction*, 21.

the term addiction is an admission that non-biological, non-pharmacological factors, such as environment, psychology, and social setting, play a role in addictive behaviour. Nonetheless, the retention of the term dependence suggests that the WHO still hopes that a purely physical, biological, pharmacological account of addictive behaviour will someday be arrived at. And this would justify the legal prohibitions against drugs. The problem is the substance and has nothing to do with social factors. Of course, this separation of causal factors is not possible because the interaction between an agent's physiology and pharmacology always exists in the context of the agent's perceptions and her interaction with her environment. Addiction, or dependence, or whatever label is chosen, refers to a set of behaviours engaged in by actors embedded in rich and complex social settings. Addiction is something people do in a social context, and is not rooted in the physical properties of illegal drugs and their interaction with human physiology alone.

Here, it could be suggested that the concept of addiction might involve drastically biased miscategorizations, but that physical dependence rooted in physiological adaptations in the brain alone is real nevertheless. This is especially plausible for heroin addicts, as it is common knowledge that heroin causes physical dependence. If physical changes in the brains of addicts could be established, this would prove drug dependence and explain why addicts behave so compulsively. For instance, in *Neurobiological Advances From the Brain Disease Model of Addiction*, Volkow et al., despite mentioning social factors, cite neuroplastic adaptations caused by dopamine release in the brain triggered by drug addiction as being responsible for addicts' behaviour: changes in the dorsal striatum, nucleus accumbens, prefrontal cortex, amygdala, and hippocampus. These changes become deeply ingrained and can trigger conditioned responses. This is said to explain why addicts "have strong cravings for a

drug long after use has stopped (e.g. owing to incarceration or treatment).⁷⁴ In the prefrontal cortex there are changes in the glutamate and dopamine signalling system, and “these effects explain why persons with addictions can be sincere in the desire and intention to stop using a drug and yet simultaneously impulsive and unable to follow through on their resolve.”⁷⁵

Several comments are in order before proceeding. First, the best studied cohort of heroin addiction (Vietnam veterans) found that residual cravings were actually quite rare. After 3 years of being narcotic free, only 4% reported having a craving for the drug⁷⁶ i.e persistent cravings do not need to be explained. Second, as will be shown, most addicts simply mature out of their addiction without clinical intervention i.e. the majority of addicts do not need treatment to stop. Out of Vietnam veterans who received treatment, 4% were re-addicted in the first year. Out of those veterans who were not treated, 4% were also re-addicted within the first year.⁷⁷ It does not seem that treatment or incarceration is necessary to stop using. Third, It seems that an addict’s self-report of loss of control cannot be taken at face value: these reports and quantitative measures surrounding them often prove inadequate.⁷⁸ Out of Vietnam veterans involved in daily use of heroin, amphetamine, or marijuana, the only observable difference in consumption between these groups was that the heroin users perceived themselves as

⁷⁴ Nora D. Volkow, George F. Koob, and A. Thomas McLellan, "Neurobiologic Advances from the Brain Disease Model of Addiction," ed. Dan L. Longo, *New England Journal of Medicine* 374, no. 4 (January 28, 2016): 366, doi:10.1056/nejmra1511480.

⁷⁵ Ibid., 367.

⁷⁶ Robins et. al., *Vietnam Veterans Three Years After Vietnam*, 207.

⁷⁷ Ibid, 206.

⁷⁸ Norman E. Zinberg, Wayne M. Harding, and Robert Apsler, "What Is Drug Abuse?," *Journal of Drug Issues* 8, no. 1 (January 1978): abstract, doi 10.1177/002204267800800102.

dependent. "Despite their dependence, they quit much more often than anyone would've guessed."⁷⁹ Given the taboos about drug use, there is strong normative pressure preventing an addict from saying "I do heroin because I like it." George Ainslie has argued that claims of loss of control are a way to defer responsibility for actions which are disapproved of.⁸⁰ Davies and Reinerman have both argued that attributing loss of control to oneself is useful; it serves political, social, and personal purposes.⁸¹ Neil Levy has argued that addicts are guilty of "self deception: it might serve many addicts' interests to claim that they lack control."⁸²

A final comment is required: in the process of demonstrating that addiction results from a diseased and damaged brain, the fact that every normal experience changes (damages) the brain is not mentioned. Volkow et. al. do mention that addictive drugs "circumvent natural satiation" by increasing dopamine levels directly, and this explains why compulsive behaviours are more likely to emerge with drug abuse than the pursuit of natural rewards.⁸³ Of course this is true, but not sufficiently explained. The amount of dopamine released by drug use is dose dependent, and makes abusing certain drugs quite dangerous. But the difference is a difference in strength not kind. An

⁷⁹ Robins et. al., *Vietnam Veterans Three Years After Vietnam*, 210.

⁸⁰George Ainslie, "Intuitive Explanation of Passionate Mistakes," ed. John Elster, in *Addictions: Entries and Exits* (New York: Russel Sage Foundation, 1999), 209-238.

⁸¹ John Booth Davies, *The Myth of Addiction*; Craig Rienarmann, *Addiction as Accomplishment*.

⁸² Neil Levy, "Addiction and Compulsion," in *A Companion to the Philosophy of Action*, ed. Timothy O'Connor and Constantine Sandis (Chichester, West Sussex, United Kingdom: Wiley-Blackwell, 2010), 268. For the same argument see Neil Levy, "Self-Deception and Responsibility for Addiction," *J Appl Philos Journal of Applied Philosophy* 20, no. 2 (2003): 133-142, accessed July 20, 2015, doi:10.1111/1468-5930.00242.

⁸³ Nora Volkow et. al, *Neurobiologic Advances From the Brain Disease Model of Addiction*, 366.

addict is clearly influenced by drug induced neural change and can be highly motivated to use, but nothing in the science suggests that drug desires are fundamentally irresistible in a way that normal desires are not. “The bright line we so often draw between drug addiction and habitual behaviour is imaginary.”⁸⁴ Drug addictions are formed by the same process that shapes a persons desires toward any rewarding activity.

What few neuroscientists mention is that these supposedly compulsive adaptations are caused by the regular release of dopamine in the brain’s reward pathways, and that this pattern of dopamine activation can be caused not only by drugs, but by pleasurable behaviours with no pharmacological component.⁸⁵

When the neuroscientist says drugs change the brain she has said very little; every experience changes the brain. Neuroscientists know this fact but it is ignored, not made explicit, or even explained. If drug-induced changes in the brain cause compulsions to drugs, what causes compulsions to other behaviours? The answer seems to be the same thing. Every experience changes the brain, but that does not make us neurophysiological automatons. Reducing human choice and motivation to this kind of outside-in, bottom-up neural determinism alone takes away all that makes us truly human. We are not reptiles, changing stimuli changes the brain, produces learning, and that is a very good thing.

The confused views of N.E. Zinberg are representative of what I take to be a strange position: addiction happens from the outside-in (drugs cause addictions) and from the bottom-up (reduction to neural determinism).⁸⁶ He observed that any attempt to

⁸⁴ Bennet Foddy and Julian Savulescu, *A Liberal Account of Addiction*, 6.

⁸⁵ Bennet Foddy and Julian Savulescu, *A Liberal Account of Addiction*, 4.

⁸⁶ Susanne Uusitalo and Yvette Van Der Eijk, "Scientific and Conceptual Flaws of Coercive Treatment Models in Addiction," *J Med Ethics Journal of Medical Ethics*, 2015, 2/6, doi:10.1136/medethics-2015-102910. They use the phrase “bottom-up determinism,” and contrast it with “top-down neural plasticity.”

divide psychological habituation sharply from physical dependence was “futile,” but still believed in an “inevitable physical dependence which occurs following the continued and heavy use of substances such as opiates, barbiturates, or alcohol, that contain certain pharmacological properties.”⁸⁷ But this belief directly contradicts Zinberg's earlier 1976 paper which described a doctor who administered four hypodermic injections of morphine to himself everyday for over a decade, without ever experiencing any kind of withdrawal symptoms when he stopped using each weekend and for family vacations.⁸⁸ It also contradicts a 1980 statement “that few patients in hospital settings experience continued drug involvement after its therapeutic necessity is past.”⁸⁹ Zinberg states that “if naloxone, a narcotic antagonist, is administered to someone who is physically dependent on a narcotic, he will immediately develop withdrawal symptoms.”⁹⁰ However, just one page later, Zinberg claims that it “is now evident many of the symptoms of withdrawal are strongly influenced by expectations and culture.”⁹¹ In fact, researchers have found that many self-identifying heroin addicts do not display any symptoms of withdrawal even when treated with naloxone.⁹² Zinberg's 1978 belief in physical dependence is contradicted by his own 1974 findings that hospital patients who

⁸⁷ Zinberg et. al., *What is Drug Abuse*,” 14.

⁸⁸ Norman E. Zinberg and Richard C. Jacobson, "The Natural History of "chipping"" *American Journal of Psychiatry AJP* 133, no. 1 (January 1976): 37-40, doi:10.1176/ajp.133.1.37.

⁸⁹ Norman E. Zinberg, "The Social Setting as a Control Mechanism in Intoxicant Use," in *Theories on Drug Abuse: Selected Contemporary Perspectives*, ed. Dan J. Lettieri, Mollie Sayers, and Helen Wallenstein. Pearson (Rockville, MD: Dept. of Health and Human Services, Public Health Service, Alcohol, Drug Abuse, and Mental Health Administration, 1980), 236, <http://files.eric.ed.gov/fulltext/ED203259.pdf>.

⁹⁰ Zinberg et al, *What is Drug Abuse*, 20.

⁹¹ *Ibid.*, 24.

⁹² Stanton Peele, *The Meaning of Addiction*, 25. Peele cites Gay et al. (1973), Glaser (1974), O'Brien (1975), and Primm (1977).

received high doses of opiates for over ten days almost never experience withdrawal or cravings for the drug when palliative treatment is ceased.⁹³ Zinberg's 1978 formulation of dependence indicates the 1974 hospital group should be dependent. But then these patients were seemingly physically dependent on something they were physically unresponsive to the absence of, and mentally dependent on something they did not have a desire to take.

Zinberg's 1984 study of controlled heroin users indicated that 'loss of control' was not the necessary result of regular use. Instead, the perception of loss of control depends upon psychological and social variables.⁹⁴ Similarly, Herbert Fingarette's 1988 study demonstrated that tolerance, craving, and withdrawal, the alleged hallmarks of physical dependence, do not occur in many so-called physically dependent alcoholics.⁹⁵ But the symptoms of dependence (tolerance, craving, and withdrawal) do sometimes occur in association with normal, habitual, everyday behaviours. In a study of problem gamblers, researchers found that

any repetitive, stereotyped behaviour that is associated with repeated experiences of physiological arousal or change, *whether induced by a psychoactive agent or not*, may be difficult for the individual to choose to discontinue and should he so choose, then it may well be associated with disturbances of mood and behaviour⁹⁶

⁹³ Norman E. Zinberg, "Rational Approaches to Heroin Use.," in *Addiction*, ed. Peter G. Bourne (New York: Academic Press, 1974), 157. Out 100 patients who received higher than street level doses of opiates for ten or more days, only 1 reported having a desire for further injections once their pain had ceased.

⁹⁴ Norman E. Zinberg, *Drug, Set, and Setting: The Basis for Controlled Intoxicant Use* (New Haven: Yale University Press, 1984); Robins et. al., *Vietnam Veterans Three Years After Vietnam*, 210.

⁹⁵ Herbert Fingarette, *Heavy Drinking: The Myth of Alcoholism as a Disease* (Berkeley: University of California Press, 1988).

⁹⁶ Ian Wray and Mark G. Dickerson, "Cessation of High Frequency Gambling and 'Withdrawal' Symptoms," *Addiction* 76, no. 4 (1981): 405, doi:10.1111/j.1360-0443.1981.tb03238.x.

Researchers have also noted that people experience “substantial and unmistakable”⁹⁷ craving and withdrawal when ending intimate relationships. But we do not infer that people are physically dependent on gambling or their sexual partner, even though these two behaviours have biochemical consequences that can produce craving and withdrawal. It is no wonder that Zinberg appears so confused: physical dependence, which *necessarily* results from the pharmacological properties of certain dangerous drugs interacting with *any physiology*, is surely a myth because the pharmacological effects of any drug occur in the context of both a physiology and a psychology.⁹⁸ Absent any substantive evidence for a sharp division between the influence of ‘normal’ desires and the influence of ‘addictive’ desires, it is odd, and even suspicious, to assume one. The amount of dopamine received with drugs is dose dependent which makes drug abuse extremely dangerous and might explain Volkow et. al.’s observation that compulsive use is more frequently observed with drugs than with normal behaviour. But the ‘neural’ impulses do not differ in kind; instead, they only differ in strength i.e. drug desires are just strong desires and are not fundamentally different or exotic from normal desires.

In the case of opiates, we have seen that the disease view of addiction was haphazardly applied, a mixture of medical and moral language, and contentious from the

⁹⁷ Zinberg et. al., *What is Drug Abuse*, 25.

⁹⁸ See Jason M. Uslaner, Hans S. Crombag, and Terry E. Robinson, "The Influence of Environmental Context on the Effects of Drugs of Abuse," in *Neuropsychology and Substance Use: State-of-the-art and Future Directions*, ed. Ari Kalechstein and Van Gorp W. G. (New York: Taylor & Francis, 2007), 449. They use Zinberg’s (and many others) examples to conclude that a purely physiological explanations is impossible, and that any explanation *must* “emphasize pharmacology/nonpharmacology interactions.” See Gene Heyman, *Addiction A Disorder of Choice*, 21-27. Heyman reviews historical drug use and the first opium epidemic and concludes that “one of the most important etiological factors in addiction is the immediate social environment.” Quote on 22.

beginning. Our first understanding of narcotic addiction was based on racism — the stereotype of an out of control dope fiend was always an Asian in an opium den. In this sense, the concept of addiction has always involved racially motivated concerns. It seems that the WHO has an agenda other than science and health in their delineation of the concept of addiction. Most importantly, the evidence shows that the outside-in (drugs cause addictions) bottom-up (neural determinism) account of opiate addiction is false, or more precisely, incomplete. Of course we are (thankfully) influenced by the reward learning systems of our brains, but being human we are influenced by so very much more. The evidence, confirmed by urine analysis, shows that most heroin addicted veterans stopped using heroin whether they were treated or not. Surprisingly, half of those addicted in Vietnam used heroin again upon their return, but only one in eight of those became re-addicted.⁹⁹ The view that the neural adaptations caused by heroin abuse are a disease which necessarily cause a host of irreversible symptoms is false. This neural determinism ignores all the other human (social and psychological) problems that heroin addicts typically have. “It is small wonder that our treatment results have not been more impressive, when they have focused so narrowly on only one part of the problem”¹⁰⁰

1.5 Alcohol

What the MCA surrounding opiate and alcohol abuse “have in common is their physiological determinism and belief in a stereotypical addiction syndrome that rules out controlled use.”¹⁰¹ What I have called the outside-in, bottom-up neural deterministic view that drugs or alcohol are the only problem; that out of control drug use is caused by

⁹⁹ Robins et. al., *Vietnam Veterans Three Years After Vietnam*, 207.

¹⁰⁰ Robins et. al., *Vietnam Veterans Three Years After Vietnam*, 210.

¹⁰¹ Stanton Peele, *The Meaning of Addiction*, 28.

overindulging in drugs and this results in a hijacking of the brain's learning and reward centres. On this view, addiction has nothing to do with social or psychological factors.

This is the position of Steven Hyman of the NIH:

researchers must discover the molecular mechanisms by which drug-seeking behaviours are consolidated into compulsive use, the mechanisms that underlie the long persistence of relapse risk, and the mechanisms by which drug-associated cues come to control behaviour.¹⁰²

In other words, it is the molecular mechanisms *alone* that come to control behaviour resulting in loss of control (bottom-up neural determinism). It seems the hope is that a complete neuroscientific account would fully explain addictive behaviour. It is important to note here that some drug use may well be, in some sense, 'out of control,' but the evidence we have does not seem to support a sharp and fundamental distinction between the role of 'drugs of addiction' in such uncontrolled use and the role of other, more socially acceptable habits that can also involve apparently 'uncontrolled' use.

The belief that addiction was some kind of out-of-control, incurable disease did not originate with heroin, but with alcohol. "The idea that alcoholism is a progressive disease — the chief symptom of which is loss of control over drinking behaviour, and whose only remedy is abstinence from all alcoholic beverages — is now about 175 or 200 years old, but no older."¹⁰³ Before the new concept arose, in the 17th and 18th century, people had very different ideas about alcohol and their relationship to it. Alcohol was not seen as inherently evil, and it was consumed by everyone all the time. Colonial Americans drank three to four times as much alcohol as is consumed today, but it was

¹⁰² Steven E. Hyman, "Addiction: A Disease of Learning and Memory," *American Journal of Psychiatry* *AJP* 162, no. 8 (2005): abstract, doi:10.1176/appi.ajp.162.8.1414.

¹⁰³ Harry Gene Levine, "The Alcohol Problem in America: From Temperance to Alcoholism," *Addiction* 79, no. 1 (1984): 1, accessed April 10, 2015, doi:10.1111/j.1360-0443.1984.tb00252.x.

not considered a problem or a disease.¹⁰⁴ Instead, alcohol was revered, and the Puritans referred to it as the “Good Creature of God.”¹⁰⁵ Alcohol “is in itself a creature of God, and to be received with thankfulness.”¹⁰⁶ If someone drank alcohol, it was because she wanted to, and not because she was compelled to. “[C]olonial Americans did not use a vocabulary of compulsion with regard to alcoholic beverages.”¹⁰⁷ People drank at work, at home, at church, and at social gatherings. In short, they drank everyday all day, and they drank to get drunk. However, nobody thought that drinking was a significant social problem, and they did not view it as any kind of sin. Colonials did not think there was something special about either alcohol or the people who consumed it which somehow precluded moderate amounts of drinking. “[H]abitual drunkenness was regarded as natural and normal — as a choice made for pleasure.”¹⁰⁸

The pattern of alcohol consumption changed drastically between 1780 and 1830 as the norms of traditional colonial society began to break down in response to a growing industrial work force. At the same time, the kind of alcohol being consumed changed from fermented beverages like beer and wine to distilled spirits. Alcohol consumption was already prodigious, but these two factors led to a 300% increase in

¹⁰⁴ Harry G. Levine, "The Discovery of Addiction: Changing Conceptions of Habitual Drunkenness in America," *Journal of Studies on Alcohol* 39 (1978): 2,3,7, accessed April 12, 2015 http://www.tomfeiling.com/archive/The_Discovery_of_Addiction.pdf; Stanton Peele, *Diseasing of America*, 35; William White, *Slaying the Dragon*, 1.

¹⁰⁵ Harry Levine, *The Alcohol Problem in America: From Temperance to Alcoholism*, 109.

¹⁰⁶ W. J. Rorabaugh, *The Alcoholic Republic, an American Tradition* (New York: Oxford University Press, 1979), 23, accessed April 12, 2015, <https://books.google.ca/books?hl=en&lr=&id=2AUH0vchHRIC&oi=fnd&pg=PA3&dq=the+alcoholic+republic:++an+american+tradition&ots=zAXhkyAIBR&sig=622lySoYA72Ya1FxFX9SUIZsfHU#v=onepage&q=the%20alcoholic%20republic%3A%20%20an%20american>.

¹⁰⁷ Harry Levine, *The Discovery of Addiction*, 1.

¹⁰⁸ *Ibid.*, 7.

total consumption.¹⁰⁹ The annual per-capita consumption of pure alcohol went from 2.5 gallons in 1792, to 4.5 gallons in 1810, and peaked at 7.1 gallons consumed in 1830, the highest consumption level in U.S. history.¹¹⁰ The problems associated with massive alcohol consumption, which had been fairly well contained and regulated within colonial society, were beginning to make themselves evident. Simultaneously, the language used to describe the desire to drink began to change. In the Colonial period, this desire was called a “love” or an “affection,” but in the 19th century words such as “overwhelming,” “irresistible,” and “overpowering” began to be used for the first time.¹¹¹

It was during this period that the “discovery” of addiction was first made.¹¹² Previously, those who consumed alcohol belonged to a single group, but now they were placed into one of two different groups: normal drinkers and abnormal, problem drinkers.¹¹³ Problem drinkers had lost control and would actually prefer not to drink. This distinction “is at the heart of the concept of addiction. In the 19th and 20th century versions, addiction is seen as a sort of disease of the will, an inability to prevent oneself from drinking.”¹¹⁴ The original Colonial version, as espoused by Jonathan Edward’s *Freedom of the Will* in 1754, denied this possibility. The generally accepted view at the time was that there was no difference between acting in accord with one’s desires and acting in accord with one’s will.

¹⁰⁹ William White, *Slaying the Dragon*, 4; William White, *Addiction as a disease: The Birth of a Concept*, 2; Stanton Peele, *Diseasing of America*, 36.

¹¹⁰ W.J. Rorabaugh, *The Alcoholic Republic: An American Tradition*, W.J., 233.

¹¹¹ Harry Levine, *The Discovery of Addiction*, 5.

¹¹² Harry Levine, *The Alcohol Problem in America: From Temperance to Alcoholism*, 109.

¹¹³ William White, *Slaying the Dragon*, xiii.

¹¹⁴ Harry Levine, *The Discovery of Addiction*, 5.

A man never, in any instance, wills any thing contrary to his desires, or desires any thing contrary to his Will ... His Will and Desire do not run counter at all: the thing which he wills, the very same he desires ... Thus, when a drunkard has his liquor before him, and he has to choose whether to drink or no ... if he wills to drink, then drinking is the proper object of the act of his Will; and drinking, on some account or other, now appears most agreeable to him, and suits him best. If he chooses to refrain, then refraining is the immediate object of his Will and is most pleasant to him ... It cannot truly be said ... a drunkard, let his appetite be never so strong, cannot keep the cup from his mouth. In the strictest propriety of speech, a man has a thing in his power, if he has it in his choice or at his election ... Therefore, in these things, to ascribe a non-performance to the want of power or ability, is not just.¹¹⁵

By contrast, making a distinction between desires and the will is at the core of this new concept of addiction. An alcoholic cannot choose whether or not to drink. At some point he becomes “powerless, when he cannot help drinking. For that is the nature of drug addiction.”¹¹⁶ Originally alcoholics drank too much because they loved to get drunk, but that changed during this period into a belief that alcoholics drank too much because they could not help themselves.

1.6 Early Warnings

In response to these changing drinking patterns, clergy, doctors, and social reformers suggested new concepts for understanding, explaining, and treating the chronic drunkard.¹¹⁷ Central to this new concept of addiction was a distinction between willing and desiring i.e. the chronic drunkard drank because she could not help herself. The first American to challenge the Colonial view on alcohol and (not coincidentally) to call for total abstinence was the Quaker reformer Anthony Benezet, in 1774. In *The Mighty Destroyer Displayed*, Bennett described alcohol as a “bewitching poison,” and called people who did drink “unhappy dram-drinkers bound in slavery.” He also noted

¹¹⁵ Jonathan Edwards, “Freedom of The Will,” in *Basic Writings*, (1966), 199, 203, 218-219. See Harry Levine, *The Discovery of Addiction*, 5, 6, for Edwards quotes.

¹¹⁶ Mark Keller, "On the Loss-of-Control Phenomenon in Alcoholism," in *British Journal of Addiction* 67, no. 3 (1972): 162, doi:10.1111/j.1360-0443.1972.tb01188.x.

¹¹⁷ William White, *Addiction as a Disease: The Birth of a Concept*, 2.

the inevitable progression of the disease: “Drops beget drams, and drams beget more drams, till they become without weight or measure.”¹¹⁸

The next warning appeared in Dr. Benjamin Rush’s 1784 book, *An Enquiry into the Effects of Spirituous Liquors Upon the Human Body, and Their Influence Upon the Happiness of Society*. The importance and influence of Rush for the evolving concept of addiction cannot be overstated. He was a prominent colonial who signed the Declaration of Independence, was the Physician-general in the Continental Army, and held a seat in the Continental Congress. At the Philadelphia College of Physicians, Rush trained more future physicians than anyone else of the time, and his compiled writings composed the first American medical textbook. Rush was America’s first alcohol and alcoholism expert. Just as alcohol consumption was about to massively increase, Rush’s warning in *Enquiry* stands as the beginning of a new way of interpreting society’s relationship with alcohol. Rush believed that “a nation corrupted by alcohol can never be free.”¹¹⁹

Rush’s description of the alcoholic and alcoholism in *Enquiry* has continued to shape the concept of addiction to this very day. A fully developed disease concept of addiction does not emerge until the 1870’s, but Rush’s writings contain an embryonic version which was the first articulation of the concept in the U.S.¹²⁰ Rush thought that drunks were compelled to use alcohol, and that the compulsion began slowly and gradually progressed:

“It belongs to the history of drunkenness to remark, that its paroxysms occur ... at certain periods, and after longer or shorter intervals. They often begin with

¹¹⁸ See William White, *Addiction as a Disease: The Birth of a Concept*, 2, 3; for Benezet quotes.

¹¹⁹ See William White, *Slaying the Dragon*, William L. White, 2; for Rush’s quote. All of the information from this paragraph is taken from 1, 2.

¹²⁰ William White, *Slaying the Dragon*, William L. White, 2.

annual, and gradually increase in their frequency, until they appear in quarterly, monthly, weekly, and quotidian or daily periods.”¹²¹

A paroxysm is a drinking binge characterized by an inability to stop drinking, what Rush called a “disease of the will.”¹²² Today, such an impairment to one’s free agency is called loss of control, and draws on the distinction between the will and the desire:

“When strongly urged, by one of his friends to leave off drinking, [a drunkard] said, ‘Were a keg of rum in one corner of a room, and were a cannon constantly discharging balls between me and it, I could not refrain from passing before that cannon, in order to get the rum.’”¹²³

Another feature of Rush’s disease concept was that the tendency towards compulsive drinking behaviour was passed down between generations of the same family.¹²⁴ He also thought that total abstinence is the only possible cure for this brand new disease.

“My observations authorize me to say, that persons who have been addicted to them, should abstain from them suddenly and entirely. ‘Taste not, handle not, touch not’ should be inscribed upon every vessel that contains spirits in the house of a man, who wishes to be cured of habits of intemperance.”¹²⁵

Without question, Rush is the founding father of the temperance movement.¹²⁶

The temperance movement took Rush’s disease concept and combined it with religious imagery which portrayed alcohol as a tool of the Devil (e.g. “demon rum”). He is also the father of American psychiatry and the first to suggest mental illnesses were caused by

¹²¹ Benjamin Rush, “An enquiry into the effects of ardent spirituous ...” (8th edition, 1814), 192, in Y.A. Henderson, *A New Deal in Liquor: A Plea For Dilution*, (New York; Doubleday; 1934). See Harry Levine, *The Discovery of Addiction*, 7; for Rush’s quote.

¹²² William White, *Slaying the Dragon*, 2.

¹²³ Benjamin Rush, *Medical Inquiries and Observations upon the Diseases of the Mind* (New York; Hafner; 1810,) 266; See Harry Levine, *The Discovery of Addiction*, 8, for this quote.

¹²⁴ William White, *Slaying the Dragon*, 2.

¹²⁵ Benjamin Rush, “An enquiry into the effects of ardent spirituous ...” (8th edition, 1814), 192, in Y.A. Henderson, *A New Deal in Liquor: A Plea For Dilution*, (New York; Doubleday; 1934). See Harry Levine, *The Discovery of Addiction*, 8; for Rush’s quote.

¹²⁶ William White, *Slaying the Dragon*, 3; Harry Levine, *The Discovery of Addiction*, 8.

diseases of the mind instead of by possession by demons.¹²⁷ The importance of Rush to the concept of addiction cannot be overstated. Using his influence, he concluded *Enquiry* with an impassioned plea to “ministers of the gospel, of every denomination, to save our fellow men from being destroyed by the great destroyer of their lives and souls.”¹²⁸

Rush believed in, and strongly asserted, his *assumption* that alcohol addiction is a disease with a genetic predisposition that causes loss of control and requires total abstinence to cure. But his understanding and explanations of alcoholic behaviour were folk-psychological at best, as he had, from a modern perspective, a rather poor understanding of medicine and psychology. In order to understand Rush’s conception of alcoholism, it is necessary to understand his basic medical philosophy more generally. Rush believed that disease states were caused by an imbalance of the body’s four fluids: phlegm, blood, black bile, and yellow bile.¹²⁹ So the proper treatment for any disease involved a rebalancing of the four fluids and involved bleeding, sweating, purging, blistering the skin, etc. Rush treated acute alcohol addiction by creating fright, inducing perspiration and vomiting, and bleeding the alcoholic. Rush was a strong believer in prodigious amounts of bleeding because “all disease arose from a ‘morbid excitement caused by capillary tension.’”¹³⁰ For Rush, the easiest way to avoid alcohol induced imbalances, which he inevitably relieved with prodigious bleeding, was to avoid

¹²⁷ Penn Medicine, "Dr. Benjamin Rush: Father of American Psychiatry," Pennsylvania Hospital History: Stories - Dr. Benjamin Rush, 2015, accessed May 23, 2016, <http://www.uphs.upenn.edu/paharc/features/brush.html>.

¹²⁸ Benjamin Rush, “An enquiry into the effects of ardent spirituous ...” (8th edition, 1814), 192, in Y.A. Henderson, *A New Deal in Liquor: A Plea For Dilution*, (New York; Doubleday; 1934). See Harry Levine, *The Discovery of Addiction*, 8; for Rush’s quote.

¹²⁹ William White, *Slaying the Dragon*, 3.

¹³⁰ William White, *Slaying the Dragon*, 3.

all alcohol. A lot of the patients he bled died, but Rush committed an easy to make clinical error: because some of the people he bled got better, it was easy to make the fallacious inference that it was the treatment (bleeding) that caused the improvement.

In 1810, after noticing the failure of hospitals and jails to effect any substantive change in the behaviour of drunkards, Rush called for the establishment of a special

“‘Sober House,’ where alcoholics could be confined and rehabilitated ...[which] would consist primarily of religious and moral instruction. A committee appointed by the judge of the local court would decide when the alcoholic had been sufficiently rehabilitated to warrant discharge.”¹³¹

Rush was a foundational contributor to this new concept of addiction: first, he thought that distilled alcohol was the cause of the alcoholism, the problem is the product not the person; second, he claimed the addict had lost control of her drinking and was behaving compulsively; third, he labelled this compulsive loss of control a disease; fourth, he maintained that total abstinence was the only path to recovery for an alcoholic; fifth, he thought the disease had a genetic predisposition; and finally, he called for special treatment centres where the alcoholic could receive moral and religious training. It seems that Rush’s assumptions, his folk-psychological explanation of addictive behaviour, are identical to the MCA. A question that needs to be answered is how someone with such a poor, from a modern perspective, understanding of science, medicine, and disease could have gotten things so “bang-on” right.

Conversely, maybe Rush was wrong. He was certainly wrong about the need for bleeding to re-establish balance in the four fluids as a medical treatment of any kind, let alone a cure for alcoholism. He demanded abstinence as a cure because he believed consumption necessarily led to an imbalance that required bleeding, bleeding often

¹³¹ “Plan for an Asylum for Drunkards to be Called the Sober House.” Benjamin Rush, (1810), in *The Autobiography of Benjamin Rush*, Corner, G. Ed. (1948), pp. 354-355, Princeton: Princeton University Press.

resulted in death, and so, all alcohol must be avoided. But this is a poor medical justification for any putative cure today. Nonetheless, nearly all proponents of the MCA have retained the view that abstinence is the only cure (98% of treatment centres have total abstinence as the end goal of treatment),¹³² in spite of the evidence supporting the efficacy of controlled drinking. (see the so-called Rand report in *Alcoholism and Treatment* and the research of Mark and Linda Sobell).¹³³ There has been, and continues to be, strong opposition to the idea that controlled drinking could be a legitimate treatment option for alcoholism.¹³⁴ It seems abstinence only must be the default position of the brain disease view, since drugs cause irreversible damage to the brain, consuming *any* more of the substance can only harm a brain that needs to *heal*.¹³⁵ Despite the belief that abstinence is required, the evidence shows that people with drug problems do better when they have choices other than abstinence alone.¹³⁶ It is also conceivable that Rush was wrong more generally. Perhaps addiction is not a disease

¹³² United States, National Institute of Health, National Institute on Alcohol Abuse and Alcohol, *National Treatment Center Study*, by Paul M. Roman and Terry C. Blum (1997), 24, accessed May 23, 2016, <http://ntcs.uga.edu/reports/NTCS%20summary%20reports/NTCS%20Report%20No.%201.pdf>.

¹³³ H. R. Stambul, J. M. Polich, and D. J. Armour, *Alcoholism and Treatment* (Santa Monica, CA.: Rand Corporation, 1976), <http://130.154.3.8/content/dam/rand/pubs/reports/2007/R1739.pdf>.; Mark B. Sobell and Linda C. Sobell, "Alcoholics Treated by Individualized Behaviour Therapy: One Year Treatment Outcome," *Behaviour Research and Therapy* 11, no. 4 (1973): 195-215, doi:10.1016/0005-7967(73)90118-6.

¹³⁴ See Stanton Peele, "Denial—of Reality and Freedom—in Addiction Research and Treatment," *Bulletin of the Society of Psychologists in Addictive Behaviour* 5, no. 4 (1986), accessed September 1, 2015, <http://www.peele.net/lib/denial.html>.; for a discussion of the political and institutional opposition to controlled drinking therapy.

¹³⁵ G. Alan Marlatt and Katie Witkiewitz, "Harm Reduction Approaches to Alcohol Use," *Addictive Behaviours* 27, no. 6 (2002): 868, doi:10.1016/s0306-4603(02)00294-0.

¹³⁶ Andrew Hathaway, *Drugs and Society*, 162.

causing loss of control that has a genetic component. Maybe the problem is the *person* and not the *product*, or more probably, the problem is the person *and* the product.

In 1825, the Reverend Lyman Beecher sounded the warning in his *Six Sermons*. The sermons are a strange combination of medical and moral language. Beecher claimed that the person who over-indulges in alcohol was “addicted to sin,” who had an “evil habit” caused by “an insatiable desire to drink ... Intemperance is a disease as well as a crime.”¹³⁷ Beecher also contributed a remarkably modern looking checklist of the warning signs of alcoholism.¹³⁸

Dr. Samuel Woodward was head of the Worcester Massachusetts mental asylum and the leading expert on mental health issues in the United States. In 1838, he called alcohol addiction a physical disease:

The appetite is wholly physical, depending on a condition of the stomach and nervous system, which transcends all ordinary motives of abstinence. The suffering is immense, and the desire of immediate relief so entirely uncontrollable, that it is quite questionable whether the moral power of many of its victims is sufficient to withstand its imperative demands¹³⁹

Addiction is a disease which “preys upon his (the drunkard’s) health and spirits ... making him a willing slave to his appetite.”¹⁴⁰ Woodward called for special asylums to treat the chronic drunkard, noted the role of heredity, and introduced the notion of tolerance. He believed that alcoholics need to be educated and remain abstinent:

Show to him ... the reason why the case is not controllable by the will, that it is a physical evil, a disease of the stomach and nervous system, and entirely incurable while the practice is followed¹⁴¹

¹³⁷ William White, *Addiction as a Disease: The Birth of a Concept*, 3.

¹³⁸ *Ibid.*, 3.

¹³⁹ S.B. Woodward, *Essays on Asylums for Inebriates*, (Worcester; 1838), 2, in Harry Levine, *The Discovery of Addiction*, 10.

¹⁴⁰ William White, *Addiction as a Disease: The Birth of a Concept*, 3.

¹⁴¹ *Ibid.*, 4.

In 1829, William Sweester argued that chronic drunkenness caused a “morbid alteration” in all bodily functions. Despite subscribing to a disease view of addiction, he also noted the inherent tension between the disease view and contemporary notions of free will, and also sounded an ominous warning:

Now that it (intemperance) becomes a disease no one doubts, but then it is a disease produced and maintained by voluntary acts, which is a very different thing from a disease with which providence inflicts us ... I feel convinced that should the opinion ever prevail that intemperance is a disease like fever, mania, &c., and no moral turpitude be affixed to it, drunkenness, if possible, will spread itself even to a more alarming extent than at present.¹⁴²

The observations made by many early commentators on alcoholism do not differ significantly from some current beliefs about addiction or the ideology of AA.¹⁴³ One person described what would happen if a drunk took one drink:

“All have seen cases of this kind, where a longer or shorter interval of entire abstinence is followed by a paroxysm of deadly indulgence ... In their sober intervals they reason justly, of their own situation and its danger; they know that for them, there can be no temperate drinking: They resolve to abstain altogether, and thus avoid temptation they are too weak to resist. By degrees they grow confident, and secure in their own strength, and ... they taste a little wine. From that moment the nicely adjusted balance of self control is deranged, the demon returns in power, reason is cast out, and the man is destroyed.”¹⁴⁴

The disease concept was an integral part of early temperance movement literature. In 1829, Norman Beman wrote that “drunkenness is itself a disease ... When the taste is formed, and the habit established, no man is his own master.”¹⁴⁵ John Marsh wondered if there was any prudent use of alcohol, “a single portion of which produces the same disease of which the drunkard dies, and a disease which brings along with it a

¹⁴² Ibid., 4.

¹⁴³ Harry Levine, *The Discovery of Addiction*, 10.

¹⁴⁴ Review of Dr. Scott’s address. *Amer. Quart. Temp. Mag.* 2: 145, 18.33; in Harry Levine, *The Discovery of Addiction*, 10.

¹⁴⁵ N.S. Beman, *Beman on Intemperance*, (New York; 1829), 6-7; in Harry Levine, *The Discovery of Addiction*, 10.

resistless desire for a repetition of the draught.”¹⁴⁶ One writer claimed that even moderate drinkers will come to a point where they experience a “craving for drink ... it is the nature of intoxicating liqueurs to produce the disease.”¹⁴⁷ John Gough stated that “drunkenness is a sin, but I consider it also a disease. It is a physical as well as moral evil.”¹⁴⁸ This new disease received a new name in 1849 from Dr. Magnus Huss.

These symptoms are formed in such a particular way that they form a disease group in themselves and they merit being designated and described as a definite disease ... It is this group of symptoms which I wish to designate by the name Alcoholismus chronicus.¹⁴⁹

As already noted, the change in drinking patterns from the 1780’s through to the 1830’s was caused by two main factors. The first was a switch in preferred drink from fermented beverages like beer and wine, to distilled spirits, namely whiskey, which was potent, cheap, and Americans were drinking it in “unprecedented quantities.”¹⁵⁰ The second factor was the changing social structures caused by industrialization, immigration, and the opening of the Western frontier. A workforce of men was created who did not have strong attachments to family or the community they lived in, and drinking played a central role in their lives. The changing pattern is also reflected in the change from the tavern to the saloon. For colonials, the tavern was pivotal to community involvement. It was a place where whole families gathered to drink and to socialize, “but

¹⁴⁶ J. Marsh, “Putnam and the Wolf, or, the Monster Destroyed,” in *Select Temperance Tracts*. New York; American Tract Society; (c. 1859); in Harry Levine, *The Discovery of Addiction*, 10.

¹⁴⁷ “A reply to ‘Dr. Crosby’s “calm view of temperance,” in *Moderation Vs. Total Abstinence*, (New York; National Temperance Society, 1881); in Harry Levine, *The Discovery of Addiction*, 11.

¹⁴⁸ John B. Gough, *Sunlight And Shadow*. 443. (Hartford; Worthington; 1881); in Harry Levine, *The Discovery of Addiction*, 11.

¹⁴⁹ William White, *Addiction as a Disease: The Birth of a Concept*, 5.

¹⁵⁰ William White, *Slaying the Dragon*, 4.

the saloon — associated with violence, crime, vice, and political corruption — now emerged as a threat to community life.”¹⁵¹ In a period of a few decades, “The good creature of God” had metamorphosed into “Demon Rum.” Along the way, alcoholism became a physical disease of the nervous system which causes loss of control.

The temperance movement’s first goal was to replace problematic drinking with more moderate levels of consumption, but the movement soon shifted its gaze from mere moderation towards total abstinence. In 1826, the general conference of the Methodist Episcopal Church demanded

the necessity of entire abstinence, because there seems to be no safe line of distinction between the moderate and the immoderate use of intoxicating drinks; the transition from the moderate to the immoderate use of them is almost as certain as it is insensible.¹⁵²

In the process, moderate consumption of alcohol went from being a practice which could prevent chronic drunkenness, to becoming a primary cause of chronic drunkenness.

When early efforts failed, temperance leaders became convinced that total abstinence by all was the only hope for society.¹⁵³ The movement’s failure to change drinking patterns through moderation ensured that later efforts to reform drunkards would be centred around the goal of total abstinence.¹⁵⁴

The whole question pivots, thus, on the power or powerlessness of the will in the confirmed drunkard to resist his propensity to drink ... Many of these declare that they wish to refrain from liquor, that they choose to, and that they try to, that they put all the strength of their wills into the endeavour to, but that their craving for liquor is stronger than their wills, and overpowers them ... the essence of disease

¹⁵¹ Ibid., 4.

¹⁵² D. Dorchester, *The Liquor Problem In All Ages*, (NY: Phillips & Hunt), 260; in William White, *Slaying the Dragon*, 5.

¹⁵³ William White, *Slaying the Dragon*, 5.

¹⁵⁴ Ibid., 6.

is involuntariness ... [therefore total abstinence is required because drunkards are] physically helpless to refrain from drink.¹⁵⁵

However, the earlier belief that drunks drank too much because they wanted to did not disappear:

I consider it certain that the great multitude of drunkards could stop drinking today and for ever, if they would; but they don't want to ... I observe then there is no apparent difference between drunkenness in its first and drunkenness in its last stages. In both cases there is an appetite, and a will to gratify it. The man drinks simply because he likes to drink, or likes to be drunk.¹⁵⁶

1.7 Development of Treatment

For much of history, if one struggled with alcohol, then one struggled alone with a personal problem. The first large scale method to treat the addict that emerged was the Washingtonian Total Abstinence Society, formed April 2, 1840. The Washingtonians were a society committed to total abstinence, and were organized as a social support group for those struggling with alcohol. They held weekly meetings that resembled a protestant revival and featured "experience sharing"¹⁵⁷ — confessions of alcoholic misdeeds followed by glorified tales of personal reformation. After presentations by old-timers, newcomers were invited to relate their own debauchery and sign a pledge of abstinence. The motto was "let every man be present, and every man bring a man,"¹⁵⁸

¹⁵⁵ A Connecticut Pastor, psued, "Drunkenness a curse, not a blessing," a review of Rev. John E. Todd's paper "Drunkenness a vice, not a disease." (Hartford, Case, Lockwood & Brainard; 1883), 3,15,22; in Harry Levine, *The Discovery of Addiction*, 12.

¹⁵⁶ John E. Todd, "Drunkenness a Vice, not a Disease," (Hartford, Case, Lockwood & Brainard; 1882), 7-9; in Harry Levine, *The Discovery of Addiction*, 12.

¹⁵⁷ William White, *Slaying the Dragon*, 9.

¹⁵⁸ *Ibid.*, 9.

and this turned the newly converted into missionaries for the movement. This evangelism was effective, and the Washingtonians soon had over 600,000 members.¹⁵⁹

The Washingtonian program laid the foundations for AA. Common to both is a central belief that alcoholism is a disease and not a vice,¹⁶⁰ the public confessions, public commitment, visits from old-comers (sponsors), continued experience sharing, sober entertainment, and acts of service towards other alcoholics (12th step).¹⁶¹ Two members, John Hawkins and John Gough, travelled the country giving thousands of speeches where they preached the importance of religion in maintaining sobriety. Anticipating William James, they thought that the only cure “for dipsomania [alcoholism] is religiomania.”¹⁶² These two were the first to work as paid “12 steppers,” and the first recovering alcoholism counsellors whose only credential was their days of sobriety.¹⁶³ Unlike AA, the Washingtonians were a flash in the pan which fizzled in five to six years.

Beginning with the New York State Inebriate Asylum in 1864,¹⁶⁴ a new industry emerged to medically treat addiction. In 1870, the American Association for the Cure of Inebriates was formed with only six institutions, but that number grew to over one

¹⁵⁹ See Mark Edward Lender and James Kirby Martin, *Drinking in America: A History*, (New York: Free Press, 1982); for statistics.

¹⁶⁰ From 1840's Washingtonian literature; in William White, *Addiction as a Disease: The Birth of a Concept. Part II*, 7.

¹⁶¹ William White, *Slaying the Dragon*, 10.

¹⁶² William James, *The Varieties of Religious Experience: A Study in Human Nature* ed. Eugene Taylor and Jerney Carrete, Centenary 2nd ed. (New York, NY: Routledge, 2002), 210, <http://lib.myilibrary.com.ezproxy.alu.talonline.ca/Open.aspx?id=2504>. Bill W. (AA's cofounder) read this entire book the day after his spiritual awakening. Here he found the idea that deflation at depth (rock bottom) was necessary before a spiritual experience could occur. He believed these spiritual experience were the only hope for the “powerless” alcoholic.

¹⁶³ William White, *Slaying the Dragon*, 12.

¹⁶⁴ William White, *Slaying the Dragon*, 9.

hundred centres by 1901. The central doctrine of this organization's institutions was that addiction was a "true disease" that can improve with medical treatment just like any other disease.¹⁶⁵ These inebriate homes were staffed by doctors, clergy, and recovering alcoholics. Having been influenced by the Washingtonian's "experience sharing," the managers and physicians hired to staff these institutions were frequently recovering addicts themselves. Often, there was a very thin line between being treated and being employed. It was believed that the personal experience of an alcoholic gave her a "special knowledge and fitness for the study and treatment of this malady."¹⁶⁶ Others, such as T.D. Crothers, objected to this practice. If addiction is a disease requiring medical treatment, then it stands to reason that the best person to treat the addict would be a professional trained in medicine or psychology, not a recovering addict¹⁶⁷ i.e. recovery is not a medical credential. These institutions agreed that the problem was the product. Chronic overconsumption of drugs and alcohol caused loss of volitional control.¹⁶⁸ They also agreed that the goal of treatment was always total abstinence from all intoxicants and that the first step to recovery was to isolate the patient from his usual, normal life.¹⁶⁹ Many of the larger centres favoured coercive, involuntary treatment that lasted from one to two years.¹⁷⁰

1.8 Prohibition

¹⁶⁵ A. Jaffe, "Reform in American Medical Science: The Inebriety Movement and the Origins of the Psychological Disease Theory of Addiction, 1870-1920," *Addiction* 73, no. 2 (1978): 139-147, doi:10.1111/j.1360-0443.1978.tb00134.x.

¹⁶⁶ William White, *Slaying the Dragon*, 32.

¹⁶⁷ *Ibid.*, 33.

¹⁶⁸ *Ibid.*, 34.

¹⁶⁹ *Ibid.*, 36.

¹⁷⁰ *Ibid.*, 38, 36-37.

By the beginning of the 20th Century, a change in perception occurred. Instead of focusing on a minority of ‘diseased’ users who had lost control, the focus was shifted towards inherently dangerous drugs which must be avoided by all. This belief was codified with the passage of the Harrison act of 1914 (opiates) and the Volstead Act of 1919 (alcohol), which changed addicts from medical patients worthy of treatment into ‘drunkards’ and ‘dope fiends’ who deserved incarceration. The disease view as a medical concept died coincident with the death of the treatment centres who had employed it.¹⁷¹ Opiates and alcohol were such dangerous drugs that they must be avoided by everyone, because any contact leads to an inevitable addiction i.e. the problem is the product.

1.9 Rediscovery of the Disease Concept of Addiction

According to Harry Levine, the disease concept of alcoholism was rediscovered and changed by two organizations, AA and the Yale Centre of Alcohol Studies. The change to the concept occurred with the repeal of prohibition in 1933. It was clear the problem was not in the product, alcohol, but in the person. Since almost every one was able to control their drinking and act in a socially respectable way, alcoholism must be an affliction to which only a small fraction of the drinking populace was susceptible.¹⁷² The story is different with regard to most other drugs since their prohibition has never been repealed. Opium, cocaine, and heroin were once legal and widely used without causing significant social problems, but were made illegal and redefined as inherently dangerous substances for everyone. For these drugs, the problem was still the product. Narcotic addiction, and especially heroin, became the “nonpareil drug of addiction—as leading inescapably from even the most casual contact to an intractable dependence, the

¹⁷¹ William White, *Addiction as a Disease: Birth of a Concept*, 12.

¹⁷² Harry Levine, *The Discovery of Addiction*, 15.

withdrawal from which was traumatic and unthinkable for the addict.”¹⁷³ This is identical to the temperance movement’s beliefs about alcohol. Illegal drugs are illegal for a reason: they all necessarily result in an addictive loss of control. Unlike alcohol, there is no such thing as the social or safe use of cocaine, heroin, methamphetamine, etc. Scientific understanding of addiction to illegal drugs is often conceptualized based on a racially motivated stereotype of heroin addiction. ‘Dope fiends’ whose brains have been “hijacked” by drugs.¹⁷⁴

Near the end end of Prohibition, Dr. William Silkworth was the first to suggest that alcoholism was an allergy some people are born with, and that causes them to lose control of their drinking.¹⁷⁵ Only these people needed to abstain. The change was required in a post-Prohibition world where alcohol was socially acceptable. In 1933 and 1934, Silkworth hospitalized Bill W. (AA’s cofounder and a lifelong alcoholic) several times. On December 11 1934, Bill W. was readmitted and given a “belladonna cure” composed of morphine and hallucinogens.¹⁷⁶ Silkworth became an ardent supporter of AA, and wrote the “Doctors Opinion” in *Alcoholics Anonymous* (the so-called Big Book).

The action of alcohol on these chronic alcoholics is a manifestation of an allergy; that the phenomenon of craving is limited to this class and never occurs in the average temperate drinker. These allergic types can never safely use alcohol in any form at all.... These men were not drinking to escape; they were drinking to overcome a craving beyond their mental control ... [Alcoholics] have one symptom in common: they cannot start drinking without developing the phenomenon of craving. This phenomenon, as we have suggested, may be the

¹⁷³ Stanton Peele, *Addiction as a Cultural Concept*, 208.

¹⁷⁴ See S. E. Hyman, *Addiction: A Disease of Learning and Memory*, 1414; for example.

¹⁷⁵ Stanton Peele, *Addiction as a Cultural Concept*, 208.

¹⁷⁶ Lance Dodes, *The Sober Truth*, 19; Charles Bufe, *Alcoholics Anonymous: Cult or Cure?*, 2nd ed. (San Francisco: See Sharp Press, 1998), 34-35.

manifestation of an allergy which differentiates these people, and sets them apart as a distinct group ... The only relief we have to suggest is entire abstinence.¹⁷⁷

AA was founded in 1935 by two lifelong problem drinkers, Bill W. and Dr. Bob.

AA's key insight was that recovery from alcohol was only possible by banding together with other alcoholics. They believed that the alcoholic was "suffering from an illness which only a spiritual experience will conquer."¹⁷⁸ The alcoholic must remain forever abstinent as any contact with alcohol inevitably leads to a disastrous bender. The aura of a religious revival, the meetings, oaths of abstinence, and experience sharing are all reminiscent of the Washingtonians. Bill W. read William James before he wrote The Twelve Steps. Because Bill W. agreed with James' belief that the only cure for dipsomania is religiomania, the steps are an obeisance to God.¹⁷⁹

1.10 AA's influence on the Concept and the Treatment of Addicts

The disease model and treatment methods of AA have become widely accepted and employed in the standard treatment of addictions of all kinds. In a 2010 study, up to 75% treatment centres for all kinds of addictions in the U.S. reported that their treatment philosophy could be best described by the 12 step model.¹⁸⁰ 90% of Americans surveyed believe that addiction is a disease that must be treated medically.¹⁸¹ There

¹⁷⁷ Alcoholics Anonymous World Services Inc., *Alcoholics Anonymous*, Fourth ed. (New York, NY: Alcoholics Anonymous World Services, 2001), xxvii-xxx.

¹⁷⁸ *Ibid.*, 44.

¹⁷⁹ Alcoholics Anonymous World Services Inc., *Twelve Steps and Twelve Traditions* (New York: Alcoholics Anonymous World Services, 1981), 21, 70, 96, 110; God is mentioned six times and prayer, seeking divine forgiveness, meditation, and proselytization are all required.

¹⁸⁰ John-Kåre Vederhus et al., "Obstacles to 12-step Group Participation as Seen by Addiction Professionals: Comparing Norway to the United States," *Journal of Substance Abuse Treatment* 39, no. 3 (2010): 3, doi:10.1016/j.jsat.2010.06.001.

¹⁸¹ Stanton Peele, *Addiction as a Cultural Concept*, 208.

seems to be a profound disconnect between public perception and practice that was noted by T.D. Crothers a century ago: If addiction is a disease that requires medical treatment, then addicts ought to be treated by trained professionals. 12-step groups may be useful to some but they are not any kind of medical treatment.

This acceptance of the 12-step model for treating all kinds of addictions (drug and behavioural) was largely the result of an effective public relations campaign led by Marty Mann. Mann was a wealthy socialite, and one of the first female members of AA. She perceived that part of her Step Twelve¹⁸² proselytization should be to lobby in favour of AA on a national stage, and soon founded the National Council for Education on Alcoholism in 1944 (the NCEA became the National Council on Alcoholism and eventually the National Council on Alcohol and Drug Dependence (NCADD) which is still active today).¹⁸³ Mann testified repeatedly to medical organizations without ever disclosing that she was an active and believing member of AA.¹⁸⁴ Bill W. and Dr. Bob's full names appeared on NCADD letterhead and stationary as sponsors until 1946. Ever since then, AA has been careful not to have any formal ties to NCADD, "though the NCADD has consistently functioned as AA's lobbying arm and spokesman — in the guise of a *professional* organization — on matters of public controversy"¹⁸⁵

¹⁸² Alcoholics Anonymous, *The Twelve Steps and Twelve Traditions*, 106. Step 12: "Having had a spiritual awakening as a result of these steps, we tried to carry this message to all alcoholics." This step is reminiscent of the Washingtonian belief in service to alcoholics, experience sharing, and the motto: "let every man be present, and every man bring a man."

¹⁸³ NCADD, "Our History," Ncadd.org, accessed May 27, 2016, <https://www.ncadd.org/about-ncadd/about-us/our-history>.

¹⁸⁴ Lance Dodes, *The Sober Truth*, 25.

¹⁸⁵ Charles Bufe, *AA, Cult or Cure*, 48; See Craig Reinerman, *Addiction as Accomplishment*, 313, for a description of the influence of AA, Marty Mann and NCADD; See William White, *Addiction as a Disease: Birth of a Concept. Part III, The Rebirth of the Disease Concept of Alcoholism in the 20th Century*, 16-19, for a similar description.

Mann and Bill W. soon recruited Dr. E.M. Jellinek to their cause, and established the Yale Centre of Alcohol Studies with Bill W. serving as a faculty member. The purpose of the centre was to “popularize the disease concept by putting it on a scientific footing. Note the chronology: science was not the source of the concept but a resource for promoting it.”¹⁸⁶ Up to this point in the history, the main components of the MCA have only been repeatedly assumed, but never substantively proven with any kind of scientific evidence. Jellinek is the primary author of the disease concept of addiction.¹⁸⁷ The model of progressive, inevitable deterioration has been disproven (see spontaneous remission stats),¹⁸⁸ but it is still wholeheartedly embraced by AA and 12-step style treatment. Jellinek published his findings that ‘proved’ the disease concept in a paper in 1946 that is still widely cited. It was never disclosed that the original study was funded by Marty Mann, used only 98 questionnaires, and that the original questionnaire was only ever posted in AA’s own magazine, the *Grapevine*.

In 1951, based on self-reported anecdotal evidence, AA was awarded the Lasker Award, given out by the American Public Health Association for outstanding achievement in medical research and public health administration.¹⁸⁹ No studies were

¹⁸⁶ Craig Reinerman, *Addiction as Accomplishment*, 313.

¹⁸⁷ Lance Dodes, *The Sober Truth*, 25. See E. M. Jellinek, *The Disease Concept of Alcoholism* (New Haven: Hillhouse Press, 1960).

¹⁸⁸ Reginald G. Smart, "Spontaneous Recovery in Alcoholics: A Review and Analysis of the Available Research," *Drug and Alcohol Dependence* 1, no. 4 (1976): 284, doi: 10.1016/0376-8716(76)90023-5. Estimates put the rate of spontaneous recovery between 3.7 and 7.4% for every year; See Deborah A. Dawson, "Correlates of Past-Year Status Among Treated and Untreated Persons with Former Alcohol Dependence: United States, 1992," *Alcoholism: Clinical and Experimental Research Res* 20, no. 4 (1996): 773, doi:10.1111/j.1530-0277.1996.tb01685.x. Commissioned by the Census Bureau, this large scale longitudinal study reported that 20 years after the onset of alcohol dependence, 90% of those who never received treatment were either abstinent of “drinking without abuse or dependence.”

¹⁸⁹ Lance Dodes, *The Sober Truth*, 26.

cited regarding efficacy, only declaring its “recognition of AA’s unique and highly successful approach.”¹⁹⁰ In 1954, AA member Dr. Ruth Fox founded the American Society of Addiction Medicine (ASAM), which has also always promoted the disease concept of addiction and abstinence only approaches to recovery.¹⁹¹ ASAM recommends that doctors and treatment centres work with 12-step style self-help groups because AA has helped many thousands recover.¹⁹² Any expert physician should “have a knowledge of groups such as AA, NA, Al-Anon, etc., [and] a knowledge of the spectrum of this disease and the natural progression if untreated.”¹⁹³ Soon, courts from around the country began to mandate AA attendance for alcohol and drug offences. In 1966, AA won two landmark decisions in the federal court of appeals that upheld the lower courts use of the disease concept, despite the fact that there was no precedent for a court to have the power to make a medical diagnosis.¹⁹⁴ Even though later decisions ruled that court-ordered twelve-step attendance was unconstitutional, judges continue to this day to refer people to AA as part of sentencing or probation.

In 1966, President Johnson told the entire nation that “the alcoholic suffers from a disease which will yield eventually to scientific research and adequate treatment.”¹⁹⁵ Starting in the 1960’s AA’s ideology and steps became an integral part of addiction

¹⁹⁰ Ibid, 26.

¹⁹¹ ASAM “Public Policy Statement on Abstinence, “ adopted by ASAM board of directors in September 1974, in Charles Bufe, *AA, Cult or Cure*, 109.

¹⁹² ASAM, “Resolution on Self Help Groups” adopted by ASAM board of directors on October 19, 1979, in Charles Bufe, *Alcoholics Anonymous, Cult or Cure*, 109-110.

¹⁹³ ASAM, “How to Identify a Physician Recognized for Expertness in Diagnosis and Treatment of Alcoholism and Other Drug Dependence,” adopted by ASAM board of directors, Feb. 28, 1996, in Charels Bufe, *AA, Cult or Cure*, 110.

¹⁹⁴ Lance Dodes, *The Sober Truth*, 26.

¹⁹⁵ Lance Dodes, *The Sober Truth*, 27.

treatment centres. By this point the disease theory and AA's lobbying arm had become difficult to tell apart. For instance, NCADD's (AA's public relations manager) own website claims that they "defined alcoholism as a disease and successfully worked for its adoption by the American Medical Association."¹⁹⁶ According to the *Readers Guide to Periodical Literature*, From 1935-1979, no article that was remotely critical of AA appeared in any indexed periodical. During the last decade, 75% of all the published articles were a favourable presentation of AA and the 12-step treatment movement.¹⁹⁷

AA has had a profound impact on the direction of treatment from the beginning. The 12-step treatment industry was created out of the efforts of 'educational' (NCADD) and 'medical' (ASAM) organizations that were founded and operated by AA members. AA and 12-step treatment is always portrayed as a positive thing, the disease concept of addictions is tirelessly promoted,¹⁹⁸ and abstinence is presented as the only possible solution to alcoholism. NCADD's biggest achievement was the passage of the Comprehensive Alcohol Abuse and Alcoholism Prevention Treatment and Rehabilitation Act of 1970, which was sponsored by AA member, Senator Harold Hughes. The bill was passed after Congress heard testimony from Bill W. and Marty Mann. The Act created the NIAAA, which has funnelled federal money towards the 12-step treatment movement ever since. In 1997, 93% of treatment centres for all kinds of addictions followed the 12-

¹⁹⁶ NCADD, "Our History," Ncadd.org, under, *NCADD Highlights, 1944-2015*, accessed May 27, 2016, <https://www.ncadd.org/about-ncadd/about-us/our-history>.

¹⁹⁷ Charles Bufe, *AA Cult or Cure*, 107.

¹⁹⁸ See United States, NIH, NIAA, Niaa.nih.gov, July 29, 2015, <http://www.niaaa.nih.gov/news-events/news-noteworthy/nida-and-niaaa-commentary-strongly-supports-brain-disease-model>. "The brain disease model of addiction is strongly supported by scientific evidence, according to a commentary published today in The Lancet Psychiatry by NIDA Director Dr. Nora Volkow and NIAAA Director Dr. George Koob."

step tradition of AA and 83% held 12 step meetings on site;¹⁹⁹ by 2010, as we have seen, 75% still followed the 12-step tradition. So for over four decades, the vast majority of federal funds went to organizations that support the philosophy of AA. Because of this, NCADD's budget in 1976 was five times as large as it was before the passage of the Hughes Act. "It's little wonder that UPI called passage of the Hughes Act a 'signal victory' for groups such as NCADD."²⁰⁰ NCADD's own website claims the rivers of federal cash aided the rapid development of Employee Assistance Programs that diverted impaired employees into 12-step treatment, usually by using coercive means. (e.g. "interventions" where employees are threatened with losing their job if they do not accept AA style treatment).²⁰¹

It can be argued that the 12-step treatment tradition originated with the AA indoctrination provided to patients at St. Thomas Hospital in Akron Ohio by Dr. Robert Smith, who was AA's cofounder. Dr. Bob treated over 5,000 individuals at this hospital.²⁰² The treatment provided to alcoholics consisted of the following procedures: isolate the patient, restrict her visitors to AA members, restrict her reading material to the *Bible* and the *Big Book*, induce her 'surrender', and completely indoctrinate her into AA's ideology²⁰³ Bill D. described his hospitalization under Dr. Bob:

"There was the identification with them (Bill Wilson and Dr. Bob), followed by surrendering his will to God and making a moral inventory: then, he was told

¹⁹⁹ United States, *National Treatment Centre Study*, 24.

²⁰⁰ Charles Bufe, *AA, Cult or Cure*, 110.

²⁰¹ NCADD, "For 50 years, the Voice of Americans Fighting Alcoholism," 5. In Charles Bufe, *AA Cult of Cure*, 111.

²⁰² Bill Wilson, *Alcoholics Anonymous Comes of Age*, First ed. (New York: Harper, 1957), viii.

²⁰³ Alcoholics Anonymous World Services Inc., *Dr. Bob and the Good Oldtimers: A Biography, with Recollections of Early A.A. in the Midwest* (New York, N.Y: Alcoholics Anonymous World Services, 1980), 83.

about the first drink, the 24-hour program, and the fact that alcoholism was an incurable disease — all basics of our program that have not changed to this day.”²⁰⁴

Something else has not changed with 12-step treatment, and that is its coercive nature.

AA has always believed that “the alcoholic himself didn’t ask for help. He didn’t have anything to say about it.”²⁰⁵

This coercive approach to treatment has remained ever since. Since at least the 1970’s, it has been routine for courts to coerce impaired drivers and other non-violent drug and alcohol offenders into AA meetings or AA-style inpatient treatment. In 1995, 270,000 people were forced into inpatient treatment centres, and even more were required to attend AA meetings.²⁰⁶ AA’s 1998 membership survey brochure cited 1.25 million AA members, and indicated that 11% of its members had been referred to AA by the courts.²⁰⁷ That means there were almost 140,000 self-identifying members of AA who were introduced to it coercively. But AA’s own statistics also claim a massive drop out rate (95%) for new members each year.²⁰⁸ Thus, as Bufe concludes “[i]ts virtually certain that literally *millions* of individuals have been coerced into attending AA.”²⁰⁹ In 2012, between 33 and 44% of treated respondents indicated that they had been referred

²⁰⁴ Ibid., 83.

²⁰⁵ Ibid., 82-83.

²⁰⁶ *National Admissions to Substance Abuse Treatment Services: The Treatment Episode Data Set, (TEDS) 1992-1995*. In Charles Bufe, *AA, Cult or Cure*, 108.

²⁰⁷ Alcoholics Anonymous World Services Inc., “Comments on A.A.’s Triennial Surveys,” Scribd, accessed September 20, 2015, <https://www.scribd.com/doc/3264243/Comments-on-A-A-s-Triennial-Surveys>.

²⁰⁸ Ibid., under *Appendix C: The First Year*.

²⁰⁹ Charles Bufe, *AA Cult or Cure*, 108.

to treatment by the “criminal justice system.”²¹⁰ With 1.75 million admissions reported, that equals over half a million addicts coerced into treatment, and the majority of that treatment was 12-step oriented.

However, it has been demonstrated that coercing AA attendance is not an effective way to reduce the number of DUI convictions. Study after study has demonstrated that judicial sanctions (e.g. suspension or revocation of licences), are far more effective at lowering the rate of drunk driving recidivism than forcing AA participation. People required to attend 12-step programs have more subsequent DUI arrests and accidents than those who receive judicial sanctions²¹¹ Despite these facts, judges and prosecutors continue to sentence people to attend AA to this day.

Now that Dr. Bob is dead, what kind of treatment do individuals receive at these centres? In 1997, the *National Treatment Center Study* found that 98.6% of inpatient treatment centres have total abstinence as the end goal,²¹² and we have already reviewed studies showing that most treatment centres, for all kinds of addictions, still follow the 12-step group philosophy of AA (93% in 1997 and 75% in 2010).²¹³ The goals of 12-step treatment are summarized:

“1) Treatment does not ‘cure’ the disease —the expectation is that by instituting an achievable method of abstinence the disease will be put into remission. (2) All

²¹⁰ United States, Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, *Treatment Episode Data Set (TEDS) 2002-2012* (Rockville, MD, 2014), Table 4.3a, 90, http://www.samhsa.gov/data/sites/default/files/TEDS2012N_Web.pdf. TEDS found 33% while The National Center on Addiction and Substance Abuse found 44% for 2012.

²¹¹ United States, Department of Health and Human Services, NIAAA, *Seventh Special Report to the US Congress On Alcohol and Health*, comp. Secretary of Health and Human Services (Rockville, MD, 1990), 247, <http://files.eric.ed.gov/fulltext/ED350516.pdf>.

²¹² United States, *National Treatment Center Study Summary Report*, 24.

²¹³ Ibid, 24; John-Kåre Vederhus et al., *Obstacles to 12-step Group Participation*, 3.

therapeutic efforts are directed at helping the patient reach a level of motivation that will enable him or her to commit to this abstinence program. (3) An educational program is developed to assist the patient in becoming familiar with the addictive process, insight into compulsive behaviours, medical complications, emotional insight ... (5) *The patient is indoctrinated into the AA program and instructed as to the content and application of the 12 steps of the program ...* There is insistence on participation in a longitudinal support and follow-up program based on the belief that, as in the management of all chronic disease processes, maintenance is critically important to the ultimate outcome of any therapy. Usually ... AA, Narcotics Anonymous, Opiates Anonymous, and the like.²¹⁴ [Emphasis added]

The purpose of 12-step treatment is to indoctrinate (brainwash) the addict into believing she suffers from an incurable disease; that she is powerless over her disease; that if she consumes one drink, she will follow an inevitable slide into a jail, a mental institution, or death; that she is in 'denial' and cannot trust her own 'stinking thinking'; that she abandon a life of self-direction, instead turning her will and her life over to the care of God and God's appointees; and that she needs to make a lifelong commitment to the AA program.²¹⁵ But according to Bufe, 12-step treatment

has very little to do with the problem of alcohol abuse. Rather, it's an indoctrination program designed to inculcate both distrust of self and learned helplessness ... Never mind that every single premise upon which this indoctrination program is demonstrably false.²¹⁶

Treatment in 12-step programs today is not that dissimilar from the treatment provided to alcoholics by Dr. Bob. The patient is isolated from family and friends; reading material is restricted to AA and religious texts; the patient is considered sick, and under the delusions of 'stinking thinking'; coercion using the force of the group is expected and

²¹⁴ Gregory Collins, "Contemporary Issues in the Treatment of Alcohol Dependence," in *Psychiatric Clinics of North America*. (1993): 35, in Charles Bufe, *AA, Cult or Cure*, 115-116.

²¹⁵ See Alcoholics Anonymous *The Twelve Steps and Twelve Traditions*; and Alcoholics Anonymous, *Alcoholics Anonymous (the Big Book)*, for a review of AA's steps, program, and procedures.

²¹⁶ Charles Bufe, *AA, Cult or Cure*, 116.

encouraged; the patient is given little free time or much time to themselves; “the patient is placed in a milieu where indoctrination is achieved largely through the pressure of a unanimous majority opinion, and where dissenting views and skeptical attitudes are viewed as sick, as ‘disease symptoms.’”²¹⁷ These treatment methods are disturbing because using the group to change the attitudes, beliefs, and values of the individual is a known thought reform (brainwashing) technique as identified by Robert Jay Lifton in his classic study *Thought Reform and the Psychology of Totalism: A Study of Brainwashing in China*.²¹⁸

Dr. Bartlett described her experiences:

For anyone who has not been in a 12-step rehab, the daily program is brutal. Mine lasted from 7:30 AM to 10:00PM. Essentially there was no time to think. If anyone was in his or her room for more than a few minutes, staff went in and announced that ‘isolating was just going to cause stinking thinking, so get out of your room.’ Every patient was expected to be at meals exactly on time, and to participate in all scheduled events. Late arrivals resulted in the loss of the minimal telephone contact we were allowed with outside world. Almost every group, meeting and lecture began with the Serenity Prayer, and ended with the Lord’s Prayer ... I was told that ‘addicts do not like following rules,’ so many arbitrary rules were imposed to essentially break us of the bad habit of thinking independently. They wanted to break my will, so that I would ‘snap,’ and become one of them, obedient and grateful to the program. I was told from the moment that I arrived ... that if I didn’t complete their ‘simple program’, there was a 100% chance I would drink again, and would lose my career and my family, and would ultimately die from drinking. I was not allowed to question anything about AA, especially the religious aspect ... They kept telling me that my thinking was stinking, that my intelligence was a liability and was causing my problems, and that I had better check my psychiatric knowledge at the door and stop thinking.²¹⁹

²¹⁷ Charles Bufe, *AA, Cult or Cure*, 117.

²¹⁸ Robert Jay Lifton, *Thought Reform and the Psychology of Totalism; a Study of "Brainwashing" in China* (New York: W.W. Norton &, 1961), chapter 22.

²¹⁹ Elizabeth Bartlet, “Brainwashing 101, or How I Survived 12-step Rehab,” in *Journal of Rational Recovery*, (1997), 4; in Charles Bufe, *AA, Cult or Cure*, 118.

Ken Ragge, in *The Real AA*, has also noted that the practices and procedures of AA-style treatment are the same as the indoctrination methods of religious cults, and the brainwashing techniques of the Communist Chinese.²²⁰ Much like Chinese citizens who were caught up in revolutionary colleges, the people subjected to AA-style treatment are coerced 34-44% of the time,²²¹ The ‘counsellors’ and administrators of these programs understand that most of their clients were coerced, and that gives them great power to demand that everyone univocally toe the AA party line. Some patients are thus forced to violate their own beliefs and standards.

Dr. Clifton Kirton was coerced into treatment by the Veterans Administration and had the following conversation with one of his counsellors:

‘If you think that’s what Alcoholics Anonymous is all about, you’re really missing the point. Religion has nothing to do with it. Your higher power can be anything. You are not being coerced. Your participation in AA is entirely voluntary. I must caution you, however, that your failure to internalize recovery concepts will place your transplant candidacy status in great jeopardy’

This was the response from the coordinator of the Chemical Dependency Unit of a major organ transplant centre when confronted, by [Kirton], with his own coercive tactics and with the idea that AA is a coercive, proselytizing, religious cult whose main purpose is to strip individuals of personal autonomy and to brainwash them into acceptance of irrational group ideology. This same individual also had the arrogance to state, ‘[w]e can’t always like our ‘teachers’, but we must accept what they have to teach us.’²²²

It is interesting that this counsellor insisted upon the non-coercive nature of the process right before being explicitly coercive (accept AA if you want a new organ).

²²⁰ Ken Ragge, *The Real AA: Behind the Myth of 12-step Recovery* (Tucson, AZ: See Sharp Press, 1998).

²²¹ United States, SAMSHA, *Treatment Episode Data Set (TEDS) 2002-2012*, Appendix Table 4.3a, 90, found 34%; The National Center on Addiction and Substance Abuse at Columbia, *Addiction Medicine: Closing the Gap Between Science and Practice*, 132. They found 44% of treated addicts had been referred by the courts.

²²² Charles Bufe, *AA, Cult or Cure*, 119.

Stanton Peele provides the testimony of a married woman who accepted 12-step treatment instead of facing a DUI conviction:

Marie listened to ceaseless stories of suffering and degradation, stories replete with phrases like 'descent into hell' and 'I got down on my knees and prayed to a higher power'. For Marie, AA was akin to a fundamentalist revival meeting. In the counselling program ... Marie received the same AA indoctrination and met with counsellors whose only qualification was membership in AA. These true believers told all the DWI's that they had the permanent disease of alcoholism, the only cure for which was lifetime abstinence and AA membership — all based on one drunk-driving arrest!

In keeping with the self-righteous, evangelistic spirit of the program, any objection to its requirements was treated as 'denial.' She was told to abstain from all alcohol during 'treatment,' a proscription enforced by the threat of urinalysis. As Marie found her entire life controlled by the program, she concluded that "the power these people attempt to wield is to compensate for the lack of power within themselves ... I find it unconscionable that the criminal justice system has the power to coerce American citizens to accept ideas that are anathema to them. It is as if I were a citizen of a totalitarian regime being punished for political dissent."²²³

AA's methods resemble brainwashing tactics more closely than they do a medical treatment for addiction. Given this understanding of what 12-step treatment actually is, it is not surprising that it is in fact horribly ineffective at helping people with their drug addiction problems.²²⁴ Why, for the love of Bill W. and Dr. Bob, haven't we come up with another model for the treatment of alcoholics? Why do people pay thousands for a treatment that is available for free in the local library or church basement? Why are these people hospitalized? How did group therapy, 12-step meetings, educational seminars (which are all standardized and given to all patients) come to be the dominate model?

²²³ Stanton Peele, "AA Abuse," *Reason*, November 1991, <http://www.peele.net/lib/aaabuse.html>.

²²⁴ Marica Ferri, Laura Amato, and Marina Davoli, "Alcoholics Anonymous and Other 12-step Programmes for Alcohol Dependence," ed. Cochrane Drugs and Alcohol Group, *The Cochrane Library*, July 19, 2006, under, *Discussion,* 11, doi 10.1002/14651858.cd005032.pub2.

One reason the 12-step model dominates is that the staff at many treatment centres have little or no professional training in treating addictions. Even though they have psychologists and psychiatrists on staff, the actual professionals function mainly as consultants, and much of the hands-on treatment is delivered by ‘counsellors’ whose only credential is that they are recovering addicts.²²⁵ Hazelden, one of the first and most famous treatment centres, own web site invites addicts in recovery to become a certified counsellor in just one year, or receive a Masters in counselling in just 16 months.²²⁶ Because these programs are often staffed by people who have little knowledge of addiction besides their personal experiences with AA, and their professional identities depend upon the correctness of the AA model, it is hardly surprising that there has been a tremendous amount of resistance to changing standard treatment approaches.²²⁷ Currently, we have a “treatment culture largely steeped in the self-help model [and that] stand[s] in the way of adopting new, science-based practices ... providers with a strong 12-step orientation to treatment tend to perceive evidence-based practices as less [than] acceptable.”²²⁸ The value of proper training cannot be overstated. People suffering from addiction need the assistance of trained medical professionals who implement evidence-based treatments, not the 12-step ‘folk-wisdom’ of program graduates. But the majority

²²⁵ National Center on Addiction and Substance Abuse at Columbia, *Addiction Medicine: Closing the Gap Between Science and Practice*, 212-216.

²²⁶ Hazelden Betty Ford Foundation, "Graduate Degree Programs," Hazelden Betty Ford Graduate School of Addiction Studies, accessed May 31, 2016, <http://www.hazeldenbettyford.org/education/graduate-school>.

²²⁷ Lance Dodes *The Sober Truth*, 79.

²²⁸ National Center on Addiction and Substance Abuse at Columbia, *Addiction Medicine: Closing the Gap Between Science and Practice*, 214, 216.

of health care professionals do not employ EBM either, mainly because they are not trained to do so.²²⁹

The results of failed treatment are horrendous. For instance, see Maia Szalavitz's article on Hazelden graduate Robin Williams' recent suicide.²³⁰ The treatment provided to guests on the hit TV show *Celebrity Rehab* followed this typical treatment pattern. But when the number of deaths of people who allegedly received treatment reached five, AA frontman, Drew Pinsky, decided enough was enough and stopped production of the show despite it being a ratings success.

Another reason the 12-step model continues to dominate treatment is that the NCADD and AA have actively suppressed any dissent. It is normal in the medical world for researchers to try to develop alternative therapies when the current therapy for some problem repeatedly fails, but this has not been the case with 12-step treatment. Instead, any evidence that contradicts AA's ideology is deliberately suppressed. A good example is the possibility of controlled drinking as plausible therapy for alcoholism. Of course, such an idea directly contradicts AA's belief that alcoholism is a progressive and fatal disease that requires total abstinence to recover from. Mark and Linda Sobell published two sound academic research articles demonstrating that people with severe alcohol abuse problems who were given moderation training actually fared better than a similar group who received abstinence training.²³¹ Because they had published results that

²²⁹ Ibid, 216.

²³⁰ Maia Szalavitz, "How Much Did the Stigma of Mental Illness Harm Robin Williams?," *Substance.com*, August 14, 2014, <http://www.substance.com/how-much-did-the-stigma-of-mental-illness-harm-robin-williams/10707/>.

²³¹ Mark Sobell and Linda Sobell, "Alcoholics Treated by Individualized Behaviour Therapy: One Year Treatment Outcomes," and Mark B. Sobell and Linda C. Sobell, "Second Year Treatment Outcome of Alcoholics Treated by Individualized Behaviour Therapy: Results," *Behaviour Research and Therapy* 14, no. 3 (1976), doi: 10.1016/0005-7967(76)90013-9.

contradicted AA's dogma, the Sobells were publicly vilified by supporters of 12-step treatment movement.

The leader of the attempts to suppress the Sobell's research was Mary Pendery, who undertook the unusual step of contacting all of the persons given moderation training, but she did not contact the abstinence subjects. Pendery subsequently published an article in *Science* in 1982 based on her findings that disputed the Sobell's research,²³² and one of the co-authors of that article stated in an interview that the Sobells had committed fraud.²³³ However, a hearing convened by the Addiction Research Foundation eventually cleared the Sobells of any wrongdoing. In 1983, *60 minutes* aired a piece about the Sobell's study that echoed Pendery's criticisms of their work. Harry Reasoner was the journalist involved, and in one segment he interviewed a moderation subject who was shown laughing when asked about the moderation training she received. Another segment showed Reasoner walking beside the graves of the four moderation training subjects who had died in the subsequent decade. What was not shown were the graves of the six abstinence training subjects who had also died since the study. A clip of the piece was continuously run at the 1983 NCADD convention at which Mary Pendery presented "an emotional tirade against controlled drinking and

²³² M. Pendery, I. Maltzman, and L. West, "Controlled Drinking by Alcoholics? New Findings and a Reevaluation of a Major Affirmative Study," *Science* 217, no. 4555 (1982): 169-175, doi:10.1126/science.7089552.

²³³ Stanton Peele, "Denial—of Reality and Freedom—in Addiction Research and Treatment," *Bulletin of the Society of Psychologists in Addictive Behaviour* 5, no. 4 (1986), under *Personal and Historical Background*, <http://www.peele.net/lib/denial.html>.

those who advocate it.”²³⁴ Even though the Sobells were eventually cleared of all charges, they ended up having to finish their careers in Canada.

The Rand Report also found a positive outcome for alcoholics given moderation training,²³⁵ but the report was published only after one year of intense opposition from prominent NCADD members who resisted its publication and attempted to revise its findings. One of the study’s opponents, Dr. Luther Cloud, claimed “that some alcoholics have resumed drinking as a result of ... the Rand study ... this could mean death or brain damage for these individuals.”²³⁶ It seems evidence does not matter since we already ‘know’ alcoholics *cannot* ever learn to control their drinking. The Rand Report was heavily criticized by NCADD upon its release, and one researcher, Don Cahalan, noted the following:

The NCADD’s major press conference criticizing the report revealed a level of anxiety and anger much higher than ordinary concern about fairness and balance in scientific reporting. NCADD officials charged that many alcoholics would be “dying in the streets” as a direct result of publication of the report.²³⁷

²³⁴ Lance Dodes, *AA, Cult or Cure*, 121; See Stanton Peele, "How the Disease Theory of Alcoholism Killed Mary Pendery, and Harm Reduction Could Have Saved Her," *Psychology Today*, May 30, 2011, <https://www.psychologytoday.com/blog/addiction-in-society/201105/how-the-disease-theory-alcoholism-killed-mary-pendery-and-harm>. Mary Pendery remained a bitter opponent of controlled drinking and those who advocate it until her dying day. That day came on April, 10, 1994 in Wyoming. Pendery became so enamoured with her insight that controlled drinking cannot work while abstinence always does that she dated a man who had completed her abstinence program some time before, George Sie Rega. In the midst of an alcoholic binge (0.3 blood alcohol level), George murdered her and then turned the gun on himself. Peele argues that harm reduction could have saved Mary.

²³⁵ H. R. Stambul, J. M. Polich, and D. J. Armour, *Alcoholism and Treatment*.

²³⁶ Stanton Peele, *Denial—of Reality and Freedom—in Addiction Research and Treatment*,” under “The Implications for Alcoholism Treatment and Research of Smear Tactics and Trial by Media”.

²³⁷ Don Cahalan, *Understanding America's Drinking Problem: How to Combat the Hazards of Alcohol* (San Francisco: Jossey-Bass, 1987), 135.

Supporters of AA also prevented the establishment of a controlled drinking program by the former director of the Rutgers Center of Alcohol Studies, Peter Nathan. Nathan and Terry Wilson were approached by the head of a hospital board to develop a controlled drinking program at that hospital, and they developed a treatment and aftercare program which was accepted by the hospital's board of directors. The hospital issued a press release and advertisements about the new program, but before proceeding further, the hospital cancelled the program because representatives from AA threatened to stop referring alcoholics to the hospital's lucrative inpatient treatment program.²³⁸

Blackballing is, in fact, routine in the treatment industry, and many programs will not hire any staff, even cooking and cleaning personnel, unless they are outspoken supporters of AA and the 12-step tradition of treatment. For example, Emmet Velten wrote *When AA Doesn't Work for You: Rational Steps to Quitting Alcohol*, but later applied for a job at a Tucson treatment centre to lecture on the physiological effects of alcohol consumption. At Velten's interview, the treatment centre's director interrupted and asked Velten whether he believed in the 12-step treatment approach. When Emmet replied "no," Velten says that the director "escorted him off the property as if he were a plague carrier."²³⁹

Stanton Peele has dared to question AA-style treatment in many journal articles and books, and has experienced the wrath of AA supporters as a result. For instance, Peele defended the Sobells in a 1983 *Psychology Today* article, but his regular column

²³⁸ Stanton Peele, "Alcoholism, Politics, and Bureaucracy: The Consensus against Controlled-drinking Therapy in America," *Addictive Behaviours* 17, no. 1 (1992): under, "Why Reject Controlled Drinking in American Treatment", <http://www.peele.net/lib/nathan.html>.

²³⁹ Charles Bufe, *AA, Cult or Cure*, 123. From a personal interview of Emmet by Bufe.

in *U.S. Journal of Drug and Alcohol Dependence* was subsequently dropped. Because Peele supported the Sobells, he was viscously attacked by Mary Pendery at the 1983 NCADD convention. As a result, Peele's invitation to speak at the Texas Commission on Alcoholism convention was withdrawn, and his invitations to speak at such conferences dropped dramatically. Peele said the following:

My experience with this alcoholism dispute has given me a strong idea of the political power of the alcoholism movement to suppress discordant views. What astounded me most was how academic, professional, and government associates recommended that I drop the matter with the Texas Commission, saying simply that these events were typical. Apparently, those in the field had given up expecting freedom of speech or that a range of views should be represented at conferences receiving government funding and conducted at major universities. What I had uncovered was a matter-of-fact acceptance that those who do not hold the dominant point of view will not be given a fair hearing; that even to mention that there is doubt about accepted wisdom in the field endangers one's ability to function as a professional; and that government agencies reinterpret results of which they disapprove from research they themselves have commissioned²⁴⁰

Ask almost anyone what AA is and they are likely to respond that it is a highly successful support group where alcoholics can gather and assist one another in recovery, but that is only part of the story. AA-style 12-step treatment of alcoholism and drug addiction dominate the treatment industry. Because of hidden members and a carefully cultivated media image, AA has a lot of influence on American's understanding of addiction. AA has the NCADD to spread its message to the educational and medical communities, and this front group largely controls the "direction of alcoholism research, treatment, and education."²⁴¹ Most (up to 44%) of the patients (victims) who end up in treatment were coerced by the courts, and most (up to 75%) of the treatment is based on a 12-step group philosophy. Any research that questions AA's methods or

²⁴⁰ Stanton Peele, *Denial—of Reality and Freedom—in Addiction Research and Treatment*, under "Personal and Historical Background".

²⁴¹ Charles Bufe, *AA, Cult or Cure*, 123.

procedures is vilified and blackballed by these organizations. Lily-white AA, the treatment program which claims “[o]ur public relations policy is based on attraction rather than promotion,”²⁴² is, in fact, a program built out of and around massive coercion and propaganda. And this constitutes AA’s “hidden structure and hidden influence. It is, quite simply, a national disaster.”²⁴³

In this section on alcohol, we have seen that a change occurred in the way people perceived alcohol and their relationship to it. In a few short decades, the chronic drunk went from being someone who simply loved to get drunk, to an unfortunate victim who drank too much because she could not help herself. Rush called this a disease of the will, and it has been called a disease causing loss of control ever since. The two necessary and sufficient conditions of the MCA (disease view and loss of control) were originally assumed by Rush and others, and then promoted relentlessly by the Washingtonians, the temperance movement, the AACI, and finally AA and the NCADD. Based on the level of acceptance by doctors, scientists, and the general public, this has been an extremely successful public relations campaign. But something is missing from this account as well, and that is actual evidence.

[T]hese strides were achieved without any triggering event, such as a well designed study, that might support the organizations’ claims of efficacy. Most of AA’s claims were simply grandfathered in, collecting legitimacy in a sort of echo chamber of reciprocal mentions that often featured the same handful of names.²⁴⁴

Volkow et. al. (2016) claim neuroplastic changes in the brains of addicts prove addiction is a brain disease, and this explains why addicts cannot stop using when they

²⁴² Alcoholics Anonymous World Service Inc., *The Twelve Steps and Twelve Traditions*, 180.

²⁴³ Charles Bufe, *AA, Cult or Cure*, 124.

²⁴⁴ Lance Dodes, *The Sober Truth*, 28.

want to. But the evidence, which is a pure scientific description, says only that change has occurred. It takes a normative interpretation, which is *not* a scientific description, to label the changes in brain structure damage as evidence of a disease. What is not explained, or even mentioned, is that the vast majority of addicts stop using drugs on their own without clinical intervention. It is not clear how a brain disease that fundamentally ‘damages’ the parts of the brain involved in motivation and self-control could suddenly reverse itself. What is clear is that the brains of the addicts who quit using all by themselves are never scanned as a comparison. Chapter 2 will look at the ‘evidence’ which is said to ‘prove’ loss of control and show that it is largely based on a sampling error. Addicts who report they cannot stop (the minority) are always studied, while those addicts who can stop using on their own are not studied.

We began this chapter by noting that examining the history of a concept is a useful and important activity. It helps illuminate how we came to hold a concept, and whether or not the concept maps onto the external world in a rich, systematic, unifying, and coherent fashion. Unlike the big bang theory in physics, the way we came to hold all of the different aspects of the MCA is highly suspicious. I believe we have a horrible concept, and that matters because it results in horrible treatment. The ‘fact’ that addiction is a disease causing loss of control was only ever based on an 18th Century folk-psychological explanation of behaviour. The conclusion of loss of control was obtained by applying an instrumentalist moral psychology according to which self-destructive behaviour is a priori involuntary. As for the insistence on abstinence only treatment, it was initially demanded by Rush because he believed in the four fluids, and any drinking necessarily caused an imbalance which required bleeding. All of these assumptions were then taken up and culturally codified by the Washingtonians, the temperance movement, the AACI, Prohibition, and finally AA and the NCADD. Coercion

has been employed since at least the first treatment centres and has continued to be used ever since. It seems likely that the use of coercion is accepted as justified on the grounds that the patient has lost self-control. With that assumption in place, it is arguably acceptable to coerce people into treatment so that they can learn to regain the control they have lost. Because we have a concept that does not map onto physical reality (e.g. loss of control is demonstrably false in most cases), the standard treatment for addiction has nothing to do with EBM. The efficacy of AA-style treatment was never established, it was blindly, and naively, accepted; and worse, it is still being imposed on people today using severe coercion. The 12 steps might be a meaningful way of life for *some* people, but they have little to do with the actual problem of addiction.

CHAPTER 2: COERCION, LOSS OF CONTROL, AND THE BRAIN DISEASE VIEW

The MCA's assertion that addiction is a brain disease which causes a fundamental loss of control over one's drug-taking desires and actions is certainly favoured by many scientists and philosophers, and yet, it is open to substantial criticisms. For starters, if addiction is a brain disease then it seems total abstinence would be the only cure, and if addiction causes a loss of control then seems reasonable to coerce addicts in order to help them regain control. However, we have already seen that controlled drinking therapy has shown some promise, and that people with addictions do better when they have treatment options available to them other than abstinence alone.²⁴⁵ Reliance on coercion as a standard treatment option is also questionable. The justification for coercing addicts into 12-step treatment appears to be the assumption that they have an irreversible brain disease and have lost control. So before proceeding to the evidence for different treatments presented in Chapter Three, it is important in this chapter to question coercive treatment methods, the assumption of loss of control, and the disease view which are all background assumptions underlying standard treatment.

2.1 Standard Treatment

Evidence we looked at in the previous chapter revealed that the standard treatment of addiction is most often (75% in 2010)²⁴⁶ some form of 12-step facilitation (TSF) that typically coerces many of its clients. Once inside the treatment milieu, the force of the group is used to change the attitudes, beliefs, and values of the addict. Since AA is often presented as a miracle therapy for an actual disease, it seems odd,

²⁴⁵ Andrew Hathaway, *Drugs and Society*, 162.

²⁴⁶ John-Kåre Vederhus et al., *Obstacles to 12-step Group Participation*, 3.

and in fact suspicious, that the cure often involves coercion and frequently employs the same brainwashing techniques used by religious cults and the Communist Chinese. TSF is often called the “Minnesota Model” which can be characterized by a milieu governed by the 12-step philosophy, “typically augmented with group psychotherapy, educational lectures and films, AA meetings, and relatively unspecified general alcoholism counselling, often of a confrontational nature.”²⁴⁷ It is still the usual practice of many clinicians to refer their addicted clients to AA.²⁴⁸ TSF and the Minnesota Model still “dominate” the treatment methods for all kinds of addictions,²⁴⁹ and this model is “the default predominant approach ... [and] the most influential and recognized perspective.”²⁵⁰ Unfortunately from an EBM perspective, “[T]welve step methods have become central in the world of institutional treatment.”²⁵¹

For 2012, the *Treatment Episode Data Set (TEDS)* found that 33.9% of those admitted to a variety of treatments (inpatient and outpatient) had been referred by the criminal justice system. By contrast, only 16.5% of the referrals came from an addiction counsellor (9.3%) or other health care professional (7.2%).²⁵² The National Centre on

²⁴⁷William R. Miller, Paula L. Wilbourne, and Jennifer E. Hettema, "What Works? A Summary of Alcohol Treatment Outcome Research," ed. William R. Miller, in *Handbook of Alcoholism Treatment Approaches*, ed. Reid K. Hester, 3rd ed. (Boston: Allyn & Bacon, 2003), 41.

²⁴⁸ Barbara S. McCrady, A. Thomas Horvath, and Sadi Irvine Delaney, "Self-Help Groups," in *Handbook of Alcoholism Treatment Approaches: Effective Alternatives*, ed. Reid K. Hester and William R. Miller, 3rd ed. (Boston: Allyn & Bacon, 2003), 167.

²⁴⁹ National Centre of Addiction and Substance Abuse at Columbia, *Addiction Medicine: Closing the Gap Between Science and Practice*, 211.

²⁵⁰ Andrew Hathaway, *Drugs and Society*, 159.

²⁵¹ Marc Lewis, *The Biology of Desire*, 14.

²⁵² United States, SAMSHA, *Treatment Episode Data Set (TEDS), 2002-2012*, Table 4.3a, 90.

Addiction and Substance Abuse at Columbia reported that the number of court ordered referrals to treatment was as high as 44% in 2012.²⁵³ It is a major failure of the health-care system that judges are twice as likely to direct (via coercive threats of legal sanctions) addicts into treatment as are trained medical practitioners. This would not be seen as appropriate for other medical problems: imagine a diabetic sentenced by the judge into TSF-style treatment for being involved in an accident when her blood sugar was too low.

2.2 Coercion

Coercion is not much discussed in addiction literature, but it is still widely practiced. These “[c]oercive models of addiction share a common scientific foundation: evidence demonstrating the neurobiological changes in addiction that impair the ability to avoid drug use.”²⁵⁴ Not surprisingly, Nora Volkow (the current director of NIDA) et. al. are responsible for the evidence cited by Uusitalo and Van Der Eijk. “Supraphysiological”²⁵⁵ drug induced neuroplastic brain change is claimed to explain how and why addicts have lost control over their drug consumption.²⁵⁶ These changes are said to be a disease resulting from long-term damage. Volkow et. al. note that “the health care system already has at its disposal several evidence based treatment

²⁵³ National Centre on Addiction and Substance Abuse at Columbia, *Addiction Medicine: Closing the Gap Between Science and Practice*, 11, 132.

²⁵⁴ Susanne Uusitalo and Yvette Van Der Eijk, "Scientific and Conceptual Flaws of Coercive Treatment Models in Addiction," *Journal of Medical Ethics*, 2015, 2/6, doi: 10.1136/medethics-2015-102910.

²⁵⁵ Nora D. Volkow, Joanna S. Fowler, and Gene-Jack Wang, "The Addicted Human Brain Viewed in the Light of Imaging Studies: Brain Circuits and Treatment Strategies," *Neuropharmacology* 47 (August 10, 2004): abstract, doi:10.1016/j.neuropharm.2004.07.019.

²⁵⁶ Nora Volkow et. al, *Neurobiologic Advances from the Brain Disease Model of Addiction*, 367.

interventions,”²⁵⁷ but these methods are rarely put to use in standard practice. Instead, the belief that infringing upon an addict’s autonomy can create more autonomy, is still pervasive in addiction treatment models.²⁵⁸ The problem is that coercive treatment follows from the brain disease view. When an addict is said to be subject to coercion from within, then this coercion can be legitimately removed by forcing the addict to undergo involuntary treatment.

Coercion, on the face of it, could never be a successful treatment approach because it fails to empower the the addict. Instead, the addict is disempowered by violating her ability to consent to treatment and by violating her individual autonomy. “When participation in drug treatment is forced, poor results are not surprising.”²⁵⁹ In *The Sober Truth*, Dodes asserts that the overwhelming emotion that precipitates an addiction is helplessness. Addicts discover that some feelings of helplessness, say an inability to protect themselves in an intimate relationship, are “utterly intolerable,” and the addiction is an attempt to address or reverse those feelings.²⁶⁰ It seems reasonable to suggest that being coerced into doing *anything* would result in *anyone* feeling helpless. I argue that beginning treatment by creating more feelings of helplessness in the addict is fundamentally wrongheaded. Instead, the addict needs to feel and be empowered.

According the the MCA, addicts would prefer to stop using drugs but they cannot help themselves i.e. they have lost control, and this is taken to justify coercion. On this account, the addict is divided between her rational will and her bodily desires. Recall

²⁵⁷ Ibid., 368.

²⁵⁸ Arthur L. Caplan, "Ethical Issues Surrounding Forced, Mandated, or Coerced Treatment," *Journal of Substance Abuse Treatment* 31, no. 2 (2006): 117, doi:10.1016/j.jsat.2006.06.009.

²⁵⁹ Andrew Hathaway, *Drugs and Society*, 161.

²⁶⁰ Lance Dodes, *The Sober Truth*, 136.

that this account of addiction was invented or discovered by 18th Century reformers. The addict was divided into two parts: the rational will that was constantly overruled by her bodily desires. Because addicts are believed to have lost control, it is an easy next step to impose coercive treatment because it will be a tremendous benefit to the addict and society at large. However, Isaiah Berlin has noted the dangers of splitting the self into rational and irrational parts.

[W]e recognize that it is possible, and at times justifiable to coerce men in the name of some goal (let us say, justice or public health) which they would, if they were more enlightened, themselves pursue, but do not, because they are blind or ignorant or corrupt. This renders it easy for me to conceive of myself as coercing others for their own sake, in their, not my, interest. I am then claiming that I know what they truly need better than they know it themselves. What, at most, this entails is that they would not resist me if they were as rational and as wise as I, and understood their interests as I do ... I may declare that they are actually aiming at what in their benighted state they consciously resist, because there exists within them an occult entity—their latent rational will, or their ‘true’ purpose—and that this entity, although it is belied by all that they overtly feel and do and say, is their ‘real’ self, of which the poor empirical self in space and time may know nothing or little; and that inner spirit is the only self that deserves to have its wishes taken into account. Once I take this view, I am in a position to ignore the actual wishes of men ... to bully, oppress, torture them in the name, and on behalf, of their ‘real’ selves, in the secure knowledge that ... [this is] the free choice of his ‘true’, albeit often submerged and inarticulate, self.

It is one thing to say that I know what is good for X, while he himself does not; and even to ignore his wishes for its—and his—sake; and a very different one to say that he has *eo ipso* chosen it, not indeed consciously, not as he seems in everyday life, but in his role as a rational self which his empirical self may not know—the ‘real’ self which discerns the good, and cannot help choosing it once it is revealed. This monstrous impersonation, which consists in equating what X would choose if he were something he is not, or at least not yet, with what X actually seeks and chooses, is at the heart of all political theories of self realization. It is one thing to say that I may be coerced for my own good which I am too blind to see: this may, on occasion, be for my benefit; indeed it may enlarge the scope of my liberty. It is another to say that if it is my good, then I am not being coerced, for I have willed it, whether I know this or not, and am free (or ‘truly’ free) even while my poor earthly body and foolish mind bitterly reject it, and struggle against those who seek however benevolently to impose it, with the greatest of desperation.²⁶¹

²⁶¹ Isaiah Berlin, "Two Concepts of Liberty," in *Four Essays on Liberty*, by Isaiah Berlin (London: Oxford U.P., 1969), 132-134.

The MCA divides an addict between her bodily desires and her rational will, but this is dangerous because it justifies bullying, coercion, oppression, and torture all in the name of saving the addict. Not surprisingly then, the testimonies we looked at in Chapter One (Dr. Bartlett, Dr. Kirton, Ken Ragge, Stanton Peele, and Marie) revealed that bullying, oppression, coercion, and even torture are a part of standard treatment. Recall that the 1754 version of the chronic drunk did not make this division. "His Will and Desire do not run counter at all: the thing which he wills, the very same he desires."²⁶² A return to the old view would result in more positive treatment outcomes. A better conceptual approach would begin by denying that addiction is autonomy negating. Treatment should be an environment where the addict is not "forced into therapy but supported in identifying and training [her] own will and capacity for self-control."²⁶³

The dangers of dividing the self between a rational will pitted against the body's desires, because it justifies coercion, was also noted by Robert Jay Lifton in his classic study of Chinese brainwashing techniques, *Thought Reform and the Psychology of Totalism*. The Communist regime tortured its own subjects and western dissidents (mostly priests, doctors, and educators who remained after the takeover) in an attempt to create a new communist man. The Chinese felt justified because they were only revealing the suppressed, good little communist that existed inside everyone, and were, in fact, providing greater freedom by releasing their victims from their capitalist, bourgeoisie, bodily desires. The words of Mao Tse Tsung are illuminating.

Past errors must be exposed with no thought of personal feelings or face. We must use a scientific attitude to analyze and criticize what has been undesirable in the past ... But our object in exposing errors and criticizing shortcomings is like

²⁶² Jonathan Edwards, "Freedom of The Will," in *Basic Writings*, (1966), 199, 203, 218-219. See Harry Levine, *The Discovery of Addiction*, 5, 6, for Edward's quotes.

²⁶³ Susanne Uusitalo and Yvette Van Der Eijk, *Scientific and Conceptual Flaws of Coercive Treatment Models in Addiction*.

that of a doctor curing a disease. The entire purpose is to save the person, not cure him to death. If a man has appendicitis a doctor performs an operation, and the man is saved ... We cannot adopt a brash attitude towards diseases in thoughts and politics, but must have an attitude of "saving men by curing their diseases."²⁶⁴

The self was divided between the authentic, but latent, communist man who reasoned rationally about what was best for all, and the inauthentic, but expressive, bourgeoisie man who only sought the realization of immediate, bodily desires and pleasures. The purpose of the torture was to turn, through re-education and reform, the victims "into new people."²⁶⁵ Objectively, the victims were abused horrifically, but it is important to realize that what we would take to be a set of coercive measures, the Chinese viewed as morally uplifting and as a "*scientifically therapeutic experience*."²⁶⁶ In order to progress, the prisoners were tortured until they came to realize that it was their 'real' selves who had willed, consented to, and actually wanted the horrible abuse they were receiving. This is exactly what Berlin said happens when the self is divided between the 'authentic' rational will and the 'inauthentic' bodily desires.

I believe Mao has captured how both the disease concept of political thought and the disease concept of addiction are developed and applied. Following Mao, *any* behaviour that is normatively disapproved of (say, being a capitalist pig or using heroin) can be labelled as self-destructive. Next, selectively assume an instrumentalist moral psychology (agents rationally pursue the most efficient means towards desired ends)

²⁶⁴ Mao Tse Tung, "Correcting Unorthodox Tendencies in Learning, The Party, and Literature and Arts," in *A Documentary History of Chinese Communism*, by Conrad Brandt, Benjamin I. Schwartz, and John King Fairbank (Cambridge: Harvard University Press, 1952), 391.

²⁶⁵ "Reform Through Labour of Criminals in Communist China", *Current Background*, No. 293, American Consulate General, Hong Kong. Sept 15, 1954. Passage translated from an editorial in Jen Min Jih Pao, (the peoples daily), in Robert Jay Lifton, *Thought Reform and the Psychology of Totalism*, pg. 14.

²⁶⁶ Robert Jay Lifton, *Thought Reform and the Psychology of Totalism*, 15.

which implies that any behaviour labeled as self-destructive must also be involuntary, since no agent can truly intend self-destruction. Now, normatively assume (presume) that any addict or capitalist pig would, after careful reflection, prefer not to be one because no desire for money *or* drugs can be rational. Finally, because being a capitalist pig or a drug addict results in symptoms that the ‘real’ patient does not really want, we can call it a disease, and any level of coercion may be justified as in accordance with the wishes of the person’s true inner self.

It is all too easy to label activities that are normatively disapproved of as symptoms of a disease. In 1851, Samuel Cartwright delivered a paper to the Medical Association of Louisiana in which he said negro slaves had a disease called *drapetomania* which caused the slaves to run away from their masters. “The cause in the most of cases, that induces the negro to run away from service, is as much a disease of the mind as any other species of mental alienation, and much more curable, as a general rule.”²⁶⁷

It would be easy to object here that it is ridiculous to invoke the re-education procedures of the Communist Chinese when discussing addiction treatment. Surely, no treatment today would involve such techniques, but this assumption is false. Recall that Bufo and Ragge both compared TSF-style treatment to indoctrination techniques. In *Help at any Cost*, Maia Szalavitz reviews how the reasoning and methods applied by the Chinese to political dissidents have been used horrifically by the troubled teen industry for decades. The problem began with Synanon and was transferred to teen drug rehabilitation by Art Barker, who received 1.4 million dollars from NIDA to start up “The Seed.” The Seed stopped treating teens in 1974 after Senator Sam Ervin’s report found

²⁶⁷ Samuel Cartwright, "The Diseases and Peculiarities of the Negro Race," *Debow's Review*, 1851, accessed June 17, 2016, <http://www.pbs.org/wgbh/aia/part4/4h3106t.html>.

that they were using techniques “similar to the highly refined ‘brainwashing’ techniques employed by the North Koreans in the early 1950’s.”²⁶⁸ Mel Semblar (Semblar has been a lead fundraiser for Ronald Reagan, George Bush Sr., George Bush Jr. (who appointed Semblar ambassador to Italy), Mitt Romney, and is now vice chair of Donald Trump’s fund-raising campaign) had a child in The Seed and liked what he saw, and so he soon founded Straight Inc. in 1976. Bruce Alexander witnessed Straights ‘therapy’ in person, concluding that

Straight's treatment can be fairly compared with 'brainwashing' in prisoner-of-war camps ... Thus, procedures that would be reprehensible in any context outside of a prisoner-of-war camp are considered acceptable 'treatment' in the case of drug addiction.²⁶⁹

At the end of 1983, amid a slew of lawsuits, Straight’s national clinical director, Miller Newton, resigned but quickly founded Kids of Bergen County in May of 1984. In a 1990 CBS documentary about KIDS, state officials said the following:

So we were very concerned about a program which we looked at as being something of a private jail, utilizing techniques of torture and punishment which even a convicted criminal wouldn't be subject to. I use their terminology--restraint techniques, it would be our terminology that it was child abuse and torture--was directed by Miller Newton ... The violations that we found when we investigated were overwhelmingly violations of civil rights and safety and health and people being held against their will, sleep deprivation, restraint, seclusion, things like that.²⁷⁰

²⁶⁸ Sam J. Ervin, " Individual Rights and the Federal Role in Behavior Modification; A Study Prepared by the Staff of the Subcommittee on Constitutional Rights of the Committee on the Judiciary, United States Senate, Ninety-third Congress, Second Session., 1974-Nov," 15, ERIC, accessed June 04, 2016, <http://eric.ed.gov/?id=ED103726>.

²⁶⁹ Bruce K. Alexander, *Peaceful Measures: Canada's Way Out of the "War on Drugs"* (Toronto: University of Toronto Press, 1990), 75.

²⁷⁰ "Kids of Bergen County," in *West 57th Street*, CBS, 1990. Quotes from David Levin, former assistant state attorney for Sarasota, Florida, and Bob Dickson, Commissioner, the Texas Commission on Alcohol and Drug Abuse.

Five multi-million dollar lawsuits in the 1990s eventually ended the abuse handed out by Miller Newton and Kids of Bergen County.²⁷¹ Unfortunately, a Newton protege, Dean Vause, still operates a KIDS descendent program, the AARC, in Calgary today using the same abusive brainwashing techniques, although significantly toned down.

Just as Berlin and Lifton predicted, Straights founder Mel Semblar said that “people thought we were taking away children's rights. But we saw it just the opposite - giving them back their rights by helping them get off drugs.”²⁷² Doctor Robert L. Dupont was the second White House Drug Czar and the first director of the of NIDA. He was responsible for giving The Seed 1.4 million dollars, and was a paid Straight consultant who repeatedly testified in defence of Straight in the many lawsuits brought against the organization throughout the 1980's and 1990's. In a Straight brochure, Dupont said

To be blunt, I have spent 15 years working in the drug-abuse field, traveling to more than 20 countries and visiting hundreds of prevention programs. Straight, Inc. is the best drug-abuse treatment program I have seen. Lest there be any doubt that this is an accolade I have bestowed easily or casually, I can tell you that I have not said that about any other program.²⁷³

It is all too easy for the people responsible for these programs to imagine that the ‘therapy’ doled out, no matter how abhorrent, actually helped the victims. But this is all based on a division of the addict into a person whose a rational will has been hijacked by the bodily desires of the brain's reward and learning centres.

The MCA makes this same division. Neurophysiological change (the scientific description) is normatively framed as damage resulting from a brain disease. This is

²⁷¹ See Maia Szalavitz, *Help at Any Cost: How the Troubled-teen Industry Cons Parents and Hurts Kids* (New York: Riverhead, 2006), for a complete description of Synanon, The Seed, Straight Inc., and Kids of Bergen County.

²⁷² David Villano, "Money Man," Florida Trend Magazine, May 1, 1997, <http://www.floridatrend.com/article/13940/money-man>.

²⁷³ "What People Are Saying about the Straights," The Straights, accessed June 04, 2016, <http://thestraights.net/professional-comments.htm>.

certainly the position of Nora Volkow who is the current director of NIDA. This “supraphysiological” damage is then said to explain why addicts can be sincere in their desire to stop using drugs, but simultaneously unable to.²⁷⁴ In other words, an addict’s rational will has been hijacked by her bodily (the brain’s) desires. Given the dangers, and absent any substantive evidence for this kind of will/desire dualism, this folk-psychological, 18th Century explanation of addictive behaviour ought to be rejected and abandoned. It is dangerous because it justifies coercion, abuse, and thought reform. If an addict has truly lost control because of long term damage in her brain, then brainwashing and coercion appear to be quite legitimate treatment options. NIDA’s brain disease model supports these methods, and we have seen that NIDA is responsible for creating and then sustaining the thought reform teen rehabilitation industry in the first place.

Because of brain damage, a teen addict is unable to control her drug use. If the addict, or others, want the addict to achieve and maintain abstinence, then she must avoid druggie friends, druggie music, and druggie hangouts like malls, school, and work. Treatment must be long-term and maybe even lifelong. This sounds like the philosophy of AA and also Kids of Bergen County, but it is all based on a normative framing of neuroscience which makes a division between the hidden rational will and the pathological, drug-driven desire.

In 1988, at the age of twenty-one, I was abducted and held prisoner at Kids of Bergen county for sixteen months. Unfortunately, Miller Newton also used the aforementioned reasoning and claimed that his coercive, abusive, brainwashing techniques (which help the addict identify her authentic self and be grateful for her

²⁷⁴ Nora Volkow et. al., *Neurobiologic Advances from the Brain Disease Model of Addiction*, 367.

treatment) were supported by science and AA. Putative teen addicts were locked in total isolation from the outside world inside a warehouse for years at a time and forced to participate in eighteen hour a day mass confessionals. The patients were out of control because their minds had been hijacked by drugs. We could not attend school, or work, or listen to music, or talk to friends, or anything else. We needed to live in a warehouse surrounded by other teens who would tackle us and restrain us on the floor if our druggie-selves (irrational, inauthentic, unreal, and out of control) tried to escape. We were then held on the floor until our 'straight-selves' (rational, authentic, real, and in control) admitted we were out of control and needed, wanted, deserved, and were grateful for the abuse we were receiving. Not surprisingly, this often took many hours, and it was not uncommon for children to be restrained on the floor in their own feces and urine for up to eight hours. We were told that if we ever escaped from KIDS we would die, and for exactly the reasons offered by NIDA's directors: some form of strict behaviourism that is reduced to neurophysiology (outside-in, bottom-up neural determinism). If a teen addict is presented with any drug using cue, then the child must use. Children were held isolated from the outside world in this hell-hole for up to thirteen years.²⁷⁵

None of this has anything to do with EBM. Assuming addicts have lost control justifies coercion, and hence, the criminal actions of many ideological totalists have been philosophically and scientifically justified. Being coerced can only create more feelings of helplessness in the addict, and this is a very counterproductive way to begin

²⁷⁵ Maia Szalavitz, *Help at any Cost*, see "The Trial of Lulu Corter," for an excellent description of the reasoning and methods used at KIDS. Lulu was imprisoned there from the age of 13 to 27. No school, no job, no prom, no friends, no nothing for Lulu. KIDS own records indicate Lulu was restrained thousands of times. (I saw her restrained hundreds of times). Lulu eventually received 6.5 million dollars for the abuse she endured.

treatment. Surely, a better treatment approach would empower the addict and nurture her own capacity for change. Beginning treatment by telling the addict she is incapable of controlling her desires and actions, even if we supposed it were true, appears to be misguided. People generally do not even attempt to change things that they have no control over. Therefore, it is important to show in the next section that the assumption of loss of control is, broadly speaking, false.

2.3 Loss of Control

Bennet Foddy has noted that the premise of loss of control became a part of the science of addiction “as an unchallenged observation rather than as an empirical or analytical result.”²⁷⁶ We looked at the origins of this idea, and argued that science did not discover the concept, but was “hijacked” to promote it. Loss of control was assumed by the first reformers, then the Washingtonians, the AACI, and finally AA. The claims of AA were then blindly accepted independent of any actual evidence. Neuroscience (NIDA) today still assumes loss of control and then claims any changes in brain structure associated with an addiction explains what was only assumed to begin with.

The view that addiction involves a compulsive loss of control is contradicted by data from many large-scale national surveys. Hyman’s idea that addictive drugs can “hijack”²⁷⁷ their victim’s brains is, for the majority of the population, demonstrably false.

*The Epidemiological Catchment Area Study (ECA), (1980-1984)*²⁷⁸, *The National Comorbidity Survey (NCS), (1990-1992) and replication (2001-2002)*, and the NIAAA’s

²⁷⁶ Bennet Foddy, *Addiction and its sciences—philosophy*, 26.

²⁷⁷ Steven Hyman, *Addiction: A Disease of Learning and Memory*, 1414.

²⁷⁸ See Gene M. Heyman, "Quitting Drugs: Quantitative and Qualitative Features," *Annual Review of Clinical Psychology* 9, no. 1 (2013): 29-59, doi:10.1146/annurev-clinpsy-032511-143041 for a thorough discussion of the validity and application of the ECA data set.

National Epidemiological Survey on Alcohol and Related Conditions (NESARC), (2001-2002) all found similar results. Drug addiction, according to the *DSM-IV* criteria for drug dependence, peaks during an individual's late adolescence or early twenties. In almost every case studied by these national surveys though, the addiction was permanently resolved without clinical intervention in the individual's late twenties or early thirties.²⁷⁹ Many of these people are even able to resume drinking without experiencing a return to their previous problems with alcohol.²⁸⁰ Most addicts appear to "mature out" of their addictions in response to the challenges and opportunities of adult life. Employment, marriage, and children appear to offer most addicts sufficient motivation and reasons to drastically alter their behaviour. If the premise of loss of control is true, it is not clear how the majority of these people manage to just stop drinking or learn to moderate their drinking. This is not to deny that addicts have developed a really bad habit that they are used to overindulging, or that their choices are affected by the effects of drugs on their mesolimbic dopamine learning or reward centre, or that changing habitual, dopamine reinforced behaviours can be difficult. But it is not impossible—in fact, the evidence indicates this is what most addicts wind up doing.

In light of these facts, the claim that addicts have 'lost control' seems simplistic and exaggerated. Rather, it appears that most learn to permanently control their drug-using behaviours. Those who appear to have lost control because they chronically relapse often turn out to be psychiatric patients with underlying psychological issues.

²⁷⁹ See Gene Heyman, *Addiction: A Disorder of Choice*, 69-74 for a review of these national surveys; See also Bennett Foddy and Julian Savulescu, "Addiction And Autonomy: Can Addicted People Consent To The Prescription Of Their Drug Of Addiction?," *Bioethics* 20, no. 1 (2006): 1-15, doi:10.1111/j.1467-8519.2006.00470.x.

²⁸⁰ Raul Caetano, "NESARC Findings on Alcohol Abuse and Dependence," *Alcohol Research and Health* 29, no. 2 (2006): 155, accessed June 7, 2016, <http://pubs.niaaa.nih.gov/publications/arh29-2/152-156.pdf>.

But there is a case to be made that even their drug taking behaviours may actually be the result of a rational pursuit of desired ends, namely, the relief of intense and severe psychiatric symptoms. In *The Purpose in Chronic Addiction*, Hanna Pickard argues that chronic drug use is a rational choice because it serves a purpose for the psychiatric patient addict. Drug use is a coping mechanism, and without a real alternative addicts “may be *justified* in choosing to take drugs.”²⁸¹

It could be said that using drugs to cope is a short-term and ultimately dangerous choice, and this is true. What is terribly sad is that real people with real problems do not have better alternatives. Fifty-five year old Isabella, for instance, reports her treatment at Hazleden’s Springbrook facility in Oregon during 2006.

I suffered from severe depression and excessive alcohol use, culminating in my swallowing a bottle of Xanax and ending up in the hospital ... I was then accepted by Hazelden into their 28-day program. They knew I was suffering from depression and about my history.

Despite paying lip service to dual-diagnosis, most providers of standard treatment are not in a position to handle these cases. Hazleden is an expensive, premier centre, but Isabella only saw the psychiatrist for an initial fifteen minute assessment and then a thirty minute medication consult. Recall from Chapter One that Hazleden offers graduates a one year addiction counselling degree, and so most of the hands-on treatment is doled out by recovering addicts whose main credential is their days of sobriety. Isabella’s depression, a likely contributing factor to her alcohol problems, was left untreated. Instead,

[t]he focus was on forcing me to participate in 12-step-based activities—if I stayed in my room to read or work on assignments, I was dragged out to the

²⁸¹ Hanna Pickard, "The Purpose in Chronic Addiction," *AJOB Neuroscience* 3, no. 2 (April 18, 2012): 42, doi:10.1080/21507740.2012.663058.

group ... I was told I wasn't allowed to isolate. I feel that they ignored obvious signs of my depression, [such as her suicide attempt].²⁸²

Until Isabella is offered different and less dangerous tools for coping with her depression, continued alcohol use is a rational choice because we have not given her a better alternative. It is not that addicts cannot choose not to use, it is that they do not have a better choice. Treating suicide attempts or other *obvious* signs of mental illness, even for alcoholics, with the 12-steps is medical malpractice. It is no wonder that these psychiatric patient addicts chronically relapse and *appear* to have lost control; we have not even offered them the *hope* of a better, less destructive way to cope and live.

This psychiatric patient hypothesis is supported by the well studied opiate addicted Vietnam veterans we have already discussed. Of veterans who met the current definition of addiction and even claimed they were addicts, only 6-12% continued to use opiates in an addictive manner when they returned to the U.S.²⁸³ Of interest here, the opiate addicted veterans who presented themselves for some kind of psychiatric treatment relapsed (lost control and continued their addiction) five times as frequently as those who spontaneously controlled their opiate use without clinical intervention.²⁸⁴ In Chapter one, we saw that 50% of these heroin addicts even used heroin upon their return, but only 1/8th (6.25%) of those continued to use in an addictive manner. These findings agree with the large-scale national longitudinal studies already presented:

²⁸² Maia Szalavitz, *How Much Did the Stigma of Mental Illness Harm Robin Williams*. Interestingly, Szalavitz was an intravenous heroin addict for over ten years and quit on her own in her late twenties. Today she is one of the nations leading addiction and neuroscience journalists and author of several books including *Help at any Cost* and *Unbroken Brain: A Revolutionary New Way of Understanding Addiction*. I talked to Maia at the 2014 Survivors of Institutional Abuse conference in NYC. Maia told me she has remained abstinent by improving the quality of her life and dealing with childhood issues.

²⁸³ Jason Uslaner et. al., *The Influence of Environmental Context on the Effects of Drugs of Abuse*, 438.

²⁸⁴ Gene Heyman, *Addiction: A Disorder of Choice*, 79-80.

changing or improving life circumstances enable previously addicted people to stop using as they are presented with better alternatives. For a soldier suffering through the horrors of the Vietnam War, opiate use could be a rational choice because it was the best way available for dealing with severe and unimaginable levels of stress. As life drastically improved upon their return, the vast majority (up to 94%) stopped using heroin addictively. From this perspective, heroin addiction was a rational choice in Vietnam, and stopping was a rational choice as life improved when the veteran returned. As for the few addicts (6-12%) who did not control their use back home are likely persons with underlying psychological disturbances (perhaps PTSD from the war) of some kind. Even if we suppose that the addicts were out of control at some point, this 'compulsion' appears temporary and reversible with improving environmental conditions.

Unfortunately, the chronic, relapsing addict is overrepresented in almost all clinical data sets. Researchers are largely working with a biased sample set that is not representative of the general population according to the ECA, NCS, NESARC, and studies of Vietnam veterans.²⁸⁵ Most addicts quit on their own but these addicts are rarely studied. It would be interesting to scan the brains of addicts who spontaneously recover and compare them with the scans of the brains of addicts who report they cannot stop. It ought to be of great interest to understand how these people with an irreversible brain disease caused by the neurophysiological damage of drug abuse get better. Instead of investigating this evidence, Volkow et. al. are too busy arguing that irreversible brain damage explains, and 'proves,' why addicts cannot stop. But this outside-in, bottom-up neural determinism cannot account for the vast majority of addicts

²⁸⁵ See Gene Heyman, *Addiction: A Disorder of Choice*, 78-88, for a description of the biased sample set researchers largely work with (only those who end up in treatment) that is not representative of the general population.

who can stop. It is not clear how a brain disease that causes a fundamental loss of control could suddenly reverse itself.

A compulsion is often defined as an urge which is impossible to resist. Addiction is said to involve a compulsion of this kind, but the concept originated in the 18th Century long before the advent of modern science. Then, as we have seen, science was recruited to promote the concept, and apparently that is still its job today. According to Steven Hyman of the National Institute of Mental Health,

If neurobiology is ultimately to contribute to the development of successful treatments for drug addiction, researchers *must* discover the molecular mechanisms by which drug-seeking behaviours are consolidated into compulsive use [emphasis added].²⁸⁶

This statement clearly begs the question by assuming something that needs to be shown. From Hyman's point of view, it seems that science's job is not to discover or refute the concept of loss of control, but to promote it; science is not to study instances that do demonstrate self control, but only instances that appear to involve loss of control. Hyman's agency funded the NIAAA's NESARC study, and he ought to be fully aware of its results. If neurobiology is ultimately to contribute to successful treatment, researchers ought to study the brains of addicts who quit (the overwhelming majority), and not just the brains of addicts who report they cannot stop. Based on this evidence self control is usually regained, or, as I have argued, was never really lost in the first place in many instances. It seems like propaganda to insist on explaining something that, in broad, does not need to be explained.

Hyman continues by claiming that an addiction's effect on the mesolimbic dopamine system results in "a hijacking of neural systems related to the pursuit of

²⁸⁶ Steven Hyman, *Addiction: A Disease of Learning and Memory*, abstract, 1414n

rewards.”²⁸⁷ There are several reasons to be skeptical of the science which is said to support the concept of loss of control caused by a hijacked brain. In a hijacking, the pilot is no longer fully in charge of what happens to the plane because she is being coerced. Similarly, an addict is said to be subject to coercion from within, and hence, to suffer from truly irresistible desires. First, of course, the mesolimbic dopamine system is indeed involved in habitual behaviour, and the addict is strongly motivated to consume. But drug-related desires are biologically indistinguishable from normal everyday appetitive desires which operate through the same system; they appear to differ only in strength.²⁸⁸ It could be objected that normal desires and drug-taking desires differ qualitatively, but without establishing how they are different this claim is just an assumption. Dopamine is dopamine, and the dopamine receptors cannot tell, nor do they care, whether the source of the dopamine was exogenous or endogenous. Usually, strong desires for normal behaviours that are associated with endogenous dopamine release, such as desires for food or sex, are not believed to be truly irresistible i.e. they do not hijack the brain’s reward centre. However, addictions (or dependence or compulsions), complete with intoxication, tolerance, craving, and withdrawal have been observed to water, milk, and carrots.²⁸⁹ Drug desires, or everyday ‘normal’ desires, may well be very strong or even unusually strong, but nothing in the science suggests that they are truly irresistible. Every experience changes the brains and uses the exact same

²⁸⁷ Ibid., 1414.

²⁸⁸ See Bennet Foddy and Julian Savulescu, *A Liberal Account of Addiction*, 4, for a discussion of how drug desires are biologically identical to normal strong desires.

²⁸⁹ Ibid., 5. The authors review studies that show addiction to many very normal behaviours.

pathways and transmitters as do drugs.²⁹⁰ This ‘hijacking’ is ‘normally’ called neural plasticity and learning.

A second reason to be skeptical of the science which is said to support the idea of a hijacked brain is the problem of framing and interpretation we have already discussed. As another example, Joanna Fowler and Volkow cite evidence from structural MRIs: decrease in synaptic density in the prefrontal cortex is proof positive that addiction is a brain disease that causes loss of control, and this ‘damage’ explains the impaired decision-making processes of addicts.²⁹¹ However, there are different ways to legitimately interpret the same scientific description. Marc Lewis, who is a neuroscientist, says that “all that’s going on here is pruning. Synaptic pruning is one of two primary engines of normal cortical development; it is known to result from learning, and it generally increases neural efficiency.”²⁹² For instance, pruning is the process that enables language acquisition: the initial overabundance of neurons and synaptic connections are pruned and those that remain are reorganized.²⁹³ In other words, learning a language involves a decrease in synaptic density and other changes in the wiring of the brain. But no one would label these changes as ‘damage’, or call learning a

²⁹⁰ This point is also made in Gene Heyman, *Addiction: A Disorder of Choice*, 96; and argued convincingly in Marc Lewis’, *The Biology of Desire*, 27-46. Chapter 2 of Lewis describes “A Brain Designed for Addiction.”

²⁹¹ Joanna S. Fowler et al., "Imaging the Addicted Human Brain," *Science & Practice Perspectives*, April 2007, under, *Insights From Structural MRI*, accessed June 11, 2016, <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2851068/>.

²⁹² Marc Lewis, *The Biology of Desire*, 168.

²⁹³ D. V. M. Bishop, "How Does the Brain Learn Language? Insights from the Study of Children with, and without Language Impairment," *Developmental Medicine & Child Neurology* abstract, accessed June 11, 2016, <http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=2041&fileId=S0012162200000244>.

language a disease, or suggest that this is why children cannot control themselves. When heroin addiction is automatically taken to be wrong because it breaks the taboo against wanton self-indulgence, then it is easy to normatively label any brain change associated with addiction as damage, and then claim this damage explains why addicts engage in activities that are so strongly disapproved of (e.g. using despite negative consequences).

No matter what the damage might be, it does not follow that control is fully lost in the same way as a pilot loses control of her plane during a hijacking. The metaphor of a brain hijacked by drugs is terribly misplaced. Once again, Volkow is responsible for research that has shown that the addicted brain is increasingly controlled by the Dorsal Striatum Motor Cortex, and claims this explains why addicts have lost control.²⁹⁴ This structure “first identifies an action to be pursued ... and then generates the motivation to go after it.”²⁹⁵ Thus, it bypasses executive decision making, which is a good thing because this system is responsible for making addictive, as well as very normal, behaviours more automatic and habitual. That is its job: we need habits to free up mental energy for, say, language and thought. But it does not follow from this that self control is fully lost. The relationship between the brain and behaviour is subtle and complex, and is not reducible to any one component part. Changing habitual behaviour can be very difficult, but it is not impossible just because of changes in brain systems that bypass conscious decisions. We will soon see that even opiate addicted rats with ‘damaged’ brains can choose not to use.

²⁹⁴ Nora D. Volkow et al., "Addiction: Beyond Dopamine Reward Circuitry," *Proceedings of the National Academy of Sciences* 108, no. 37 (2011): 15037-15038, accessed May 4, 2015, doi:10.1073/pnas.1010654108.

²⁹⁵ Marc Lewis, *The Biology of Desire*, 125.

Unlike a pilot during a hijacking, or a laboratory rat, humans have the ability to remove themselves from drug consuming environments and cues. In fact, treatment ought to begin by assuming the addict can identify triggers and cues and learn to avoid them. Contingency management treatment (vouchers, prizes, and money given to patients who abstain) has been shown to be far more effective than standard treatment at increasing periods of abstinence.²⁹⁶ The most common case suggests that almost all addicts tend to mature out of their addiction, and this case shows that addicts can respond to quite meagre incentives. In general, addicts' brains do not appear to have been hijacked in a way that even vaguely resembles a hijacked plane. The metaphor of a hijacking that is employed by some neuroscientists is empirically unhelpful in explaining evidence that shows that addicts often spontaneously recover, or that they respond to quite simple incentives. Telling addicts their minds have been hijacked is conceptually false, and treatment ought not to begin by providing the patient with a built in, and scientifically justified, excuse for any and all failures.

Recall that I began by claiming that the MCA was unfalsifiable, and that the kind of evidence I have been providing has yet to be accepted as refuting the premise of loss of control. For instance, one speculative hypothesis (whose main objective seems to be to preserve the hijacking metaphor for 'real' addicts) claims that those who present themselves for treatment are more addicted (by using harder drugs for longer periods of time) than those who simply mature out of their addiction or respond to reasons.²⁹⁷ However, the data on Vietnam veterans contradicts this idea. The soldiers had easy access to extremely inexpensive and pure heroin, and on this hypothesis would be

²⁹⁶ Hanna Pickard, *The Purpose in Chronic Addiction*, 43.

²⁹⁷ Gene Heyman, *Addiction: A Disorder of Choice*, 80, provides a good example of this response.

among the least likely addicts to quit. Nonetheless, up to 94% of veterans quit in response to reasons as their environments improved. George Vaillant's long term study found that social stability, or the lack thereof, was a much better predictor of long term success than was the severity, duration, or chronicity of the addiction, and that standard treatment "exerted little effect."²⁹⁸ The evidence does not support a pharmacological explanation for why addicts who end up in standard treatment are less likely to stop abusing drugs.

Another way to bend the evidence showing addicts have not lost control is demonstrated by Neil Levy, who uses Alfred Mele's argument from *Irresistible Desires*. Just because an addiction is resistible in some situations, it does not follow that it is resistible in every situation. The irresistibility of an addictive desire must be relativized to different times and situations. Mele maintains that the irresistible desires in phobias and addictions can be overcome in exceptional circumstances, but they still remain irresistible in standard, everyday circumstances.²⁹⁹ Imagine an agoraphobic who cannot leave the leave her house in usual circumstances, but one day she leaves because it burns to the ground; or imagine an alcoholic who resists the urge to drink at work, but drinks herself into oblivion every night. Unless irresistibility of desires is relativized, Levy claims "we get the absurdity that, say, agoraphobics are not compelled to remain

²⁹⁸ George E. Vaillant, "What Can Long-term Follow-up Teach Us About Relapse and Prevention of Relapse in Addiction," *British Journal of Addiction* 83 (1988): under, *Summary*, accessed June 14, 2015, <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.498.2539&rep=rep1&type=pdf>.

²⁹⁹ Alfred R. Mele, "Irresistible Desires," *Noûs* 24, no. 3 (June 01, 1990), accessed July 01, 2015, <http://www.jstor.org.ezproxy.alu.talonline.ca/stable/2215775>.

indoors,³⁰⁰ since they would leave if their house were on fire, or that the alcoholic is not compelled to drink because she can control her intake in some situations. Just because an addict can control her use in some situations (employment, marriage, etc.), it does not follow that she can control her use in every situation. Therefore, in spite of the evidence cited, the concept that addiction involves loss of control can still be maintained.

Mele and Levy are wrong, and their mistake rests on a bad assumption and a merely stipulated distinction about what addicts and phobics are capable of compared to what other people with strong desires can do. They assume that some desires (those possessed by addicts and phobics) are so unusually strong that they are truly irresistible³⁰¹ in non-exceptional situations, but this is false. There is nothing absurd about a phobic leaving her house without it being on fire. In fact, exposure therapy for many phobias is standard, and assumes the phobic *can* leave her house for longer and longer times with less and less support from her therapist. For exposure therapy to work, the phobic has to leave the house without it being on fire. For addicts, getting married or having children are not exceptional or extreme circumstances. They are everyday occurrences and they provide strong evidence that addicts have a general, non-relativized, capacity to control their use in many normal situations, “despite the

³⁰⁰ Neil Levy, "Addiction and Compulsion," in *A Companion to the Philosophy of Action*, ed. Timothy O'Connor and Constantine Sandis (Chichester, West Sussex, United Kingdom: Wiley-Blackwell, 2010), 271.

³⁰¹ *Ibid.*, 271-272. Levy claims addictive urges can only be resisted in some context: for a short time in certain places, but “addicts will regularly fail to possess the epistemic resources for continuing to resist their urges ... some drug taking behaviour is genuinely compelled.”

neurobiological effects of drug use.”³⁰² Consider a man who drinks and gets in a fight every night, except when the police are in front of the bar. Does this mean he can only control his aggression in extreme circumstances? No, a more natural answer is that it demonstrates that the man has an ability to control his aggression, but that he only does so when he wants to. There is all the difference in the world between what a person is capable of but chooses not to do, and what a person might want to do but is physically incapable of. The point is that there is a slippery slope here. Addicts can move along this slope just as we all can, and this makes a case for the view that there is no clear line dividing addictive behaviour from more ‘normal’ behaviour.

Here it could be objected that researchers and scientists have heard the personal testimonies of thousands and thousands of addicts, and this supports the idea that addiction involves a loss of control. But there are several reasons to be skeptical of the epistemic weight of these narratives. First, national surveys show that for every story that verifies compulsive drug use, there must be ten cases of deliberate and successful abstinence.³⁰³ Second, the addicts studied by researchers are not representative of the general population. Invariably, and more or less inevitably, scientists’ understanding of addiction is based on only the small minority of the total addict population who present

³⁰² Hanna Pickard and Steve Pearce, "Addiction in Context. Philosophical Lessons from a Personality Disorder Clinic," in *Addiction and Self-control: Perspectives from Philosophy, Psychology, and Neuroscience*, ed. Neil Levy (New York, NY: Oxford University Press, 2013), 173.

³⁰³ See Gene Heyman, *Addiction A Disorder of Choice*, chapter 3, for a compilation of first person narratives involving empowerment, personal growth, long-term sobriety, and change.

themselves for treatment.³⁰⁴ But we never hear from people who have gained control. In contrast, AA's 12th step generates evangelical proselytizers, the NCADD deliberately suppresses successful controlled drinking studies, and NIDA claims inconclusive neuroscientific evidence explains loss of control. These facts are all factors that help to ensure we only hear about how addiction involves an irresistible compulsion. Third, as already discussed, there are compelling personal, economic, political, and social reasons for an addict to attribute her undesirable actions to addictive loss of control.³⁰⁵ Because attributing loss of control to oneself can excuse bad behaviour, these anecdotal reports cannot be taken at face value. When an addict claims she "can't" abstain, it might just mean the costs are too great and the rewards too small. But for her to simply say this outright is not likely to please her audience.

To sum up, it appears that most addicts have not lost control, and that their continued 'addictive' behaviour is due to the same basic neurological processes that underlie normal choices. However, a small minority of addicts chronically relapse, fail at treatment, have co-morbid psychiatric disorders, experience frequent legal problems, and so on. Levy would argue that at least this small fraction of the addict population has lost control, but even that conclusion is doubtful. An alternative view holds that for these addicts, drug use serves a very significant purpose, providing short term relief of severe psychological distress. On this view, their drug use is a paradigmatic case of goal-

³⁰⁴ See Gene Heyman, *Addiction A Disorder of Choice*, 78-88, for a description of the biased sample set researchers largely work with (those who end up in treatment) that is not representative of the general population.

³⁰⁵ See John Davies, *The Myth of Addiction*, who uses attribution theory to explain why addicts claim to have lost self control; See Craig Reinerman, *Addiction as Accomplishment: The Discursive Construction of a Disease*. He argues that claiming addiction functions as a justification at personal, social, economic, and political levels; See Neil Levy, *Self Deception and Addiction*. Levy describes how addicts might be guilty of self deception; See George Ainslie, *Intuitive Explanation of Passionate Mistakes*.

directed, rational, and deliberate action. Chronic, relapsing addiction is associated with co-morbid psychiatric disorders, childhood physical and sexual abuse, and poverty. "Addiction is not an equal opportunity disorder; indeed there is no psychiatric disorder that is more closely tied to circumstance."³⁰⁶ The alternative choices and opportunities for these addicts, even if they maintain any level of sobriety, are meagre and unattractive at best. They would still face some of our society's most pressing and serious social issues.

Bruce Alexander's experiments at "Rat Park"³⁰⁷ are a useful model in understanding chronic, relapsing addiction. Caged rats have been shown to self-administer heroin, cocaine, and morphine in very high doses, while avoiding food, water, and sex, to the point of killing themselves, 'strung out' on drugs.³⁰⁸ The rat's brain is said to be hijacked by drugs, and this behaviour has been taken to be analogous to that of addicts who behave as if they had lost control. Alexander placed already addicted rats who had been locked in cages into a rich environment which was 200 times larger, filled with toys, had painted walls, a variety of food choices, and 16-20 rats of both sexes. The addicted rats were then given a choice between morphine-laced water and plain water. Overall, the rats avoided the morphine water (drinking only a few drops) and preferred to drink only plain water. This continued even when they were experiencing

³⁰⁶ Gene Heyman, *Addiction A Disorder of Choice*, 39.

³⁰⁷ Bruce K. Alexander, Robert B. Coombs, and Patricia F. Hadaway, "The Effect of Housing and Gender on Morphine Self-administration in Rats," *Psychopharmacology* 58, no. 2 (1978): 175-179, accessed July 1, 2015, <http://link.springer.com/article/10.1007%2F00426903#page-1>.; Bruce K. Alexander et al., "Adult, Infant, and Animal Addiction," in *The Meaning of Addiction: An Unconventional View*, by Stanton Peele (San Francisco, CA: Jossey-Bass Publishers, 1998), 77-96.

³⁰⁸ J.H. Woods, *Behavioural Pharmacology of Drug Self-administration*, cited in Hanna Pickard, *The Purpose in Chronic Addiction*, 45.

signs of physiological withdrawal, and even when the morphine water was sweetened with sugar. Most often, addicted rats placed in a rich environment chose to avoid the morphine water. The story was different for addicted rats left isolated in laboratory cages who were allowed to choose between laced and non-laced water. They consumed morphine in response to withdrawal symptoms, and increased their dose on four consecutive days. Recent studies have confirmed that “environmental stimulation may be a fundamental factor in facilitating abstinence and preventing relapse to cocaine”³⁰⁹ and heroin in rats and, perhaps, humans. The evidence shows that “[w]e must shift our emphasis from a purely pharmacology-centered approach, to an approach that emphasizes pharmacology/nonpharmacology interactions.”³¹⁰

Rats locked in cages who can self administer drugs are said to have lost control and frequently die. These very same rats choose not to use when placed in a more natural environment. This is much like the evidence from Vietnam veterans who were also ‘locked’ in an unnatural and high stress environment. The veterans, much like the rats, were provided an almost endless supply of high grade heroin, and their behaviour was also said to exhibit loss of control. But these very same men chose not to use when placed in more natural and enriching environments back home.

Unfortunately, and all too frequently, many human addicts who appear to have lost control do not have a human version of Rat Park available to them i.e. they do not have an enriching environment to turn to as an alternative.

The good life does not spring forth ready-made; help with housing, employment, psychiatric problems, and social community does not tend to be promptly

³⁰⁹ Marcello Solinas et al., "Reversal of Cocaine Addiction by Environmental Enrichment," *Proceedings of the National Academy of Science*, accessed July 01, 2015, doi:10.1073/pnas.0806889105.

³¹⁰ Ulsaner et. al., *The Influence of Environmental Context on the Effects of Drugs of Abuse*, 449.

available. The opportunities and choices available to many addicts may reasonably impede their motivation to control their use, for the alternative goods on offer are poor ... unless recovery from comorbid disorders is achieved ... better life opportunities are available, and alternative ways of coping with psychological distress have been learned, patients are not likely to forgo the use of drugs and alcohol. The cost is too great, the alternative goods on offer too few. *Chronic addiction is a rational choice for such patients, unless they can be given hope for a better life.*³¹¹ [emphasis added].

If opiate addicted rats and Vietnam veterans can choose not to use, then this evidence undermines the view that addiction results in a fundamental loss of control. Even for rats, the outside-in bottom-up neural deterministic view that brain damage from drugs causes compulsive, irresistible desires appears false. Instead, I have argued that the addicts (and rats) who remain addicted can choose not to use, but they do not make this choice because they are not provided with an effective alternative for coping with severe psychological distress of some kind. As life's circumstances improve, many mammals quite easily decide to make the choice to stop abusing drugs. Evidence-based treatment ought to begin by telling every addict the fact that she has the capacity for change, instead of the current practice which standardly claims (incorrectly) that she does not. Asserting addicts have loss of control also entails a fundamental inability to change.

2.4 The Brain Disease View

The definition of disease is highly contested. One definition which is common in addiction research is that is that "a disease is a bodily malfunction that causes one's life to deteriorate"³¹² Drug addiction damages the brain and causes compulsive drug use

³¹¹ Hanna Pickard, *The Purpose in Chronic Addiction*, 45-46.

³¹² Dominic Murphy, "Concepts of Disease and Health," Stanford University, September 22, 2008, *Naturalism and Constructivism*, accessed August 26, 2016, <http://plato.stanford.edu/entries/health-disease/>.

despite negative consequences.³¹³ NIDA's media guide states that addiction is a "brain disease because drugs change the brain; they change its structure and how it works. These brain changes can be long lasting and can lead to many harmful, often self-destructive behaviours."³¹⁴ We have looked at several publications from Volkow (current director of NIDA) which took a scientific description (drug use changes the brain) and normatively framed it as evidence of a disease which causes an addict to be unable to stop using drugs even though they want to. However, NIDA's description of addiction is full of omissions, assumptions, and enthymemes that are necessary for their claims to make any sense. First, NIDA ignores the fact that every normal experience changes the brain. In fact, the most fundamental aspect of the human brain, and what makes us truly human, is changeability, but "neuroscientists who study addiction seem to have missed the point."³¹⁵ These brain changes are not distinguishable from normal learning, but with an addiction it is an extreme and even maladaptive form of learning. When Volkow states that drugs change the brain she has said very little. That is what human brains are designed to do. Second, NIDA assumes that these brain changes are evidence of a disease which causes loss of control, but there is no need to invoke "an external cause like 'disease' to explain the growth of bad habits."³¹⁶ The unstated premise is an

³¹³ This definition of a disease appears to be conceptually thin. It allows conditions such as *drapetomania* (the disease which causes negro slaves to run away from their masters) to be included along with addiction and diabetes as an actual disease. *Drapetomania* was said to be a disease of the mind which causes slaves to run away despite the fact it caused their lives to deteriorate. See Samuel Cartwright, "The Diseases and Peculiarities of the Negro Race," *Debow's Review*, 1851,

³¹⁴ National Institute on Drug Abuse, "Media Guide," *The Science of Drug Abuse and Addiction: The Basics*, September 2014, section goes here, accessed May 15, 2015, <http://www.drugabuse.gov/publications/media-guide/science-drug-abuse-addiction-basics>.

³¹⁵ Marc Lewis, *The Biology of Desire*, 32.

³¹⁶ *Ibid.*, 37.

instrumentalist moral psychology which claims that persons pursue the most efficient means towards desired ends and never voluntarily engage in self-destructive behaviour.³¹⁷ But this premise is patently false. Research from behavioural economics and psychology has demonstrated just how irrational and destructive our thinking and behaviour can actually be.³¹⁸ Claiming an addiction is irrational and self-destructive is pointless. The self-destructiveness involved in an addiction is not indicative of a malfunctioning, diseased brain. “It just shows that it’s a human brain ... irrationality is an essential feature of being human.”³¹⁹

The disease concept of addiction originated with 18th Century reformers such as Benjamin Rush, and was based on an inference from a simple instrumentalist moral psychology. The disease concept was developed as follows: addicts are self-destructive and do not take the most efficient means towards desired ends. Since addiction results in self-destructive behaviour, it follows from an instrumentalist psychology that addicts do not voluntarily choose to abuse drugs. Diseases result in involuntary and destructive symptoms, and since addiction causes involuntary and destructive symptoms too, it must, therefore, also be a disease. “[M]edical evidence did not turn alcoholism into a disease, but rather the assumption that voluntary behaviour is not self-destructive turned alcoholism into a disease.”³²⁰

³¹⁷ A.M. Viens, *Addiction, Responsibility and Moral Psychology*, 17-19.

³¹⁸ Daniel Kahneman, *Thinking, Fast and Slow* (New York, NY: Farrar, Straus, and Giroux, 2011), is a good review of this research.

³¹⁹ Marc Lewis, *The Biology of Desire*, 29.

³²⁰ Gene Heyman, *Addiction: A Disorder of Choice*, 99.

For such a common and practically useful concept, disease is notoriously difficult to define,³²¹ but there is nothing in the literature to support the claim that “changes in brain structure and function are enough to constitute a disease.”³²² The brain disease model only makes sense in light of assumptions, omissions, and enthymemes. Every experience changes the brain.³²³ Neural plasticity is a good thing, and if being produced by changes in the structure of the brain were a sufficient criterion for diagnosing a behavioural disease, then we would have to label everyone and every behaviour as diseased. If addiction is a brain disease, then that disease would most properly be called learning. “Addiction may be the uncanny result of a brain doing exactly what it’s supposed to do.”³²⁴ Volkow is fully aware that normal behaviours change the brain, and so must view the changes associated with addiction as abnormal, pathological, or in her words, “supraphysiological.” However, that would require her to show that addictive brain changes are relevantly different from normal brain change, and that addictive desires differ qualitatively, and not just in strength, from normal desires. But that is where supporters of the brain disease model “step onto thin ice.”³²⁵ Falling in love, playing a sport, or becoming obsessed with any activity changes the brain in the same manner as an addiction. Addiction may well involve large-scale changes in personal habits and synaptic patterns, but that is not enough to make it a disease.

³²¹ Jackie Leach Scully, "What Is a Disease?," EMBO Reports, accessed July 01, 2015, <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1299105/>.

³²² Bennet Foddy, *Addiction and its Sciences—Philosophy*, 26.

³²³ Bennet Foddy and Julian Savulescu, *A Liberal Account of Addiction*, 3-7, is a good description of how every experience changes the brain; see Marc Lewis, *The Biology of Desire*, Chapter 2, 27-45, for a similar description.

³²⁴ Marc Lewis, *The Biology of Desire*, 28.

³²⁵ *Ibid.*, 26.

Learning could be described as top-down neural plasticity,³²⁶ and can be contrasted with what I have called the outside-in, bottom-up neural deterministic view that reduces human behaviour to neurological changes and processes. The brain disease model does not allow for an account of human behaviour and choice that acknowledges the interaction between higher-order executive decisions and neurologically driven urges and desires. The model also ignores that the interaction between between drugs, a physiology, and a psychology occurs in some social environment located at a specific time and place. Of course we are motivated by the systems in our brain, but reducing human choice and action to changes in brain structure and function alone is overly simplistic, and cannot be grounds for properly identifying a disease.

The disease concept transforms addiction from an elective act into something that “just happens” to the addict against her own will. However, this reasoning is dangerous. It is used to justify punitive forms of prohibition that cause much harm and do little to prevent drug use or other addictive behaviour, and it allows us to force addicts “to undergo treatment without worrying about infringing upon their autonomy.”³²⁷ The disease concept and loss of control are both used to justify coercive treatment in order to get the addiction “out of the person.” But this is the same kind of reasoning that was used to justify burning witches.

Traditionally, possession was seen as the hijacking of a person’s mind by an alien spirit which entered the person from the outside (outside-in). The spirit then seized control of the victim’s behaviour against her own will. In order to protect society and the

³²⁶ Susanne Uusitalo and Yvette vander Eijk, *Scientific and Conceptual Flaws of Coercive Treatment*, 2/6.

³²⁷ Bennet Foddy, *Addiction and its Sciences—Philosophy*, 26.

possessed victims from themselves, witch-hunts, torture, and executions were justified.³²⁸ Currently, science conceives of addiction as a rationalized, modernized, and secularized version of demonic possession.³²⁹ Addiction is the evil spirit which enters from outside (e.g. demon rum) and takes control of the addict's behaviour against her own will. The brain disease model of addiction describes a mystery. The mystery of why addicts continue to use despite negative consequences. Calling addiction a brain disease might sound like a promising explanation-sketch, but it did not arise from a developed, scientific case for distinguishing sharply between everyday, voluntary behavioural choices and the choices made by the generally unfortunate people we call addicts. We have no evidence that it has contributed to successful efforts to change the behaviour of these addicts,³³⁰ and research into how addictive drugs affect behaviour has not successfully identified a fundamental difference between the effects of taking addictive drugs and other kinds of behavioural learning that could support a serious argument for treating such behaviours as either involuntary or irrational symptoms of a disease.

2.5 Conclusions

The MCA, according to which addicts have lost control and have a disease that necessitates life-long abstinence and justifies coercive treatment, is scientifically,

³²⁸ See Aldous Huxley, *The Devils of Loudun* (New York: Harper & Brothers, 1965), for an account of one horrific example.

³²⁹ Robin Room, *The Cultural Framing of Addiction*, 47.

³³⁰ Sheila Mehta and Amerigo Farina, "Is Being "Sick" Really Better? Effect of the Disease View of Mental Disorder on Stigma," *Journal of Social and Clinical Psychology* 16, no. 4 (1997): 405, doi:10.1521/jscp.1997.16.4.405. They found that calling mental disorder a disease increased the stigma experienced by patients, and the psychosocial model did not. "The results provide little support for the claim that regarding the mentally disordered as *sick* or *diseased* will promote greater acceptance or more favourable treatment."

philosophically, and conceptually unjustified. The bar ought to be set very high for any kind of intrusive, autonomy-denying intervention. The comparison to Mao and the words of Berlin are a warning that rationalizing such intrusive interventions poses a high moral risk. The disease of *drapetomania* reminds us how easy it is to call any activity that is normatively disapproved of a disease. Reducing addictive loss of control to a discussion of akrasia and the phenomena associated with talk of akrasia, that is behaviour reflectively regarded as not the 'right choice' but repeatedly/persistently engaged in, is not particularly useful. On the one hand this is both common and trivial for most of us. But this is not a helpful concept here: too snarled in philosophical theories of rational behaviour. The common philosophical languages of self-reports and explanation of behaviour is not a very well-grounded way of understanding human behaviour. On one level it's all we've got, but EBM-type methods circumvent the whole issue and point towards how to identify effective interventions independent of philosophical psychology.

It is time to go 'pragmatic empiricist' on this problem. That is, pay attention to empirical evidence of what interventions help and form policies and practices that truly reflect that evidence. But the question, and the problem from a healthcare perspective, is how to enable changes in the behaviour of addicts? Reliable evidence here does not include patient reports, health-care professional reports, or case studies because they are too biased. The clinician is under social pressure to accept the language/theory of the treating organization, and such language is regularly imposed on the patients too. Instead we need real EBM-type studies. Double-blind studies seem impossible, but given clinical equipoise (the point where a rational, informed person has no preference

between two (or more) available treatments),³³¹ cohorts could ethically be randomly assigned to different treatment protocols.

³³¹ J.A. Chard and R.J. Lilford, "The Use of Equipoise in Clinical Trials," *The Use of Equipoise in Clinical Trials*, accessed February 01, 2016, <http://www.sciencedirect.com/science/article/pii/S0277953698001531>.

CHAPTER 3: ADDICTION TREATMENT, EVIDENCE, AND EQUIPOISE

We began by noting the main components of the MCA, and Chapter One demonstrated that they were largely a social construction and argued that they seem to have been pulled straight out of thin air. Chapter Two's purpose was to show that the two necessary and sufficient components of the MCA (loss of control and the brain disease view) do not map onto physical reality in a rich and systematic fashion, and that they justify bullying, oppressing, coercing, and even brainwashing the addict in the name of her 'true' inner and rational self. These horrific impersonations of treatment are justified by a division between the rational mind and bodily desires that are at the heart of the premise of loss of control. Along the way, we have seen that some form of TSF still "dominates" the standard treatment for all kinds of addiction according to Vederhus (2010), The National Centre on Addiction and Substance Abuse at Columbia (2012), Hathaway (2015), and Lewis (2015). This chapter is explicitly about evidence, EBM, and equipoise: what treatments are effective, what treatments are not, and what interventions can a clinician ethically recommend. I believe we have a bad concept and am going to show that this has led to poor treatment results. A 2012 NIDA publication stated that treatment does not need to be voluntary to be effective, and listed 12-step facilitation therapy as an evidence based method,³³² but we will soon see that this is patently false, and so, the clinician can not ethically refer addicts to such treatments.

3.1 Evidence-Based Medicine

EBM is critical for clinical practice because it weeds out the natural biasing errors that occur in practitioners and patients. If a doctor sends some patient to AA and the

³³² United States, NIDA, *Principles of Drug Addiction: A Research Based Guide*, December 2012, under, *Evidence Based Approaches to Drug Addiction treatment*, accessed June 14, 2016, <https://www.drugabuse.gov/publications/principles-drug-addiction-treatment-research-based-guide-third-edition/principles-effective-treatment>.

person gets better, it is all too easy for both parties to believe that the treatment worked and was responsible for any and all improvement. For example, a recent magazine headline announced the tautology (something that is *always* true, and hence, not particularly useful) “Study Finds AA Works (If You Work It)” based on a ten year study.³³³ For contrast, imagine a similar headline from meteorology: “Ten Year Study Finds it’s Raining if it’s Raining.” A large sample of properly designed studies is what counts as evidence, and it is necessary to weed out the biases that have invaded the treatment of addiction.

Instead, we need to pay attention to empirical evidence of what interventions actually help and develop treatment options that truly reflect that evidence. EBM is the “[c]onscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients.”³³⁴ It requires the integration of the clinician’s expertise with external evidence based on systematic research. The Cochrane Collaboration provides one of the best collections of tools and methods for doing so. It is a world-wide network of research centres that collect, prepare, and disseminate systematic reviews on the efficacy of health-care treatment protocols.³³⁵ The Collaboration’s mandate is to sift through the glut of medical research, to report on poorly designed studies that might get a lot of fanfare, and contrast them with the results of well-designed, reliable studies. They do not consider purely observational studies or uncontrolled studies, and are committed to pushing back against what David Sackett

³³³ McCarton Ackerman, "Study Finds AA Works (If You Work It)," *The Fix*, September 07, 2012, accessed June 14, 2016, <https://www.thefix.com/content/study-finds-aa-works90599>.

³³⁴ David Sackett,, *Evidence Based Medicine: What It Is and What It Isn't*, 71.

³³⁵ Eileen Gambrill, "Evidence-based Clinical Behavior Analysis, Evidence-based Medicine and the Cochrane Collaboration," *Journal of Behaviour Therapy and Experimental Psychiatry* 30, no. 1 (1999): 1, doi:10.1016/s0005-7916(98)00035-4.

called “the disastrous inadequacy of lesser evidence.”³³⁶ Regarding questions about different therapies, it is necessary to avoid non-experimental methods (e.g. clinician reports, patient reports, or case studies), “since these routinely lead to false positive conclusions about efficacy.”³³⁷

3.2 The Evidence

In the *Handbook of Alcoholism Treatment Approaches*, Reid Hester and William Miller review their exhaustive three decade review of treatment outcome literature, with the goal of informing clinicians who are treating people with alcohol problems. They were pleased to find that there are a number of different treatment methods that are consistently well supported by the evidence from controlled clinical trials, but others were clearly identified as being of little or no benefit. Of the beneficial treatments, no one modality emerged as being superior to any other. The news is good: clinicians have at their disposal an array of EBM treatment options for people with an addiction. They also noticed something that disturbed them. The treatment methods shown to be most effective were almost never used in standard practice. Instead, the methods most often used “were those with substantial evidence of ineffectiveness.”³³⁸ Standard treatment offers a one-size fits all treatment instead of a menu of options, and does not tailor the treatment to each particular client. Certainly cost is a factor, but a high cost is not justification for offering treatments that are know to be ineffective.

By 2012, little had changed. The National Centre on Addiction and Substance Abuse at Columbia found that even though there were a number evidence-based

³³⁶ Lance Dodes, *The Sober Truth*, 37.

³³⁷ David Sacket, *Evidence Based Medicine: What It Is and What It Isn't*, 72.

³³⁸ Reid K. Hester and William R. Miller, eds., *Handbook of Alcoholism Treatment Approaches*, Third ed. (Boston, MA: Allyn & Bacon, 2003), ix.

treatment options available, “treatment today for the most part is not based in the science of what works.”³³⁹ Treatment of addiction bears little resemblance to any kind of evidence-based practices. Addiction often cooccurs with mental disorders but standard treatment interventions do not address these issues. Very few (less than one in ten) people with an addiction receive any kind of treatment for it, and most referrals (44%) come from the criminal justice system.³⁴⁰ There is a large body of evidence about what works, but it is not in use in the standard treatment of addiction. Indeed, very few people receive treatment interventions that are consistent with scientific evidence. A complete over-haul is required to bring current practice in line with scientific evidence, and the standard of care that is established for other medical conditions. The continued failure to consistently deliver evidence based interventions to people with an addiction “constitutes a form of medical malpractice.”³⁴¹

3.3 What Works and What Does Not?

Miller et. al.’s review looked at 381 different studies, that used 99 different treatment methods, and included over 75,000 participants. They then ranked the different methods according to how effective the studies had shown them to be. By far the most effective treatment, which also has a large literature base, was brief counselling. Surprisingly, an addict can receive substantial benefit from even very limited contact with a health-care professional. Two medications, naltrexone and acamprosate, came in at number three and number six on the list. So far, these are very inexpensive and easy to administer interventions. Therapies which also made the top

³³⁹ The National Centre On Addiction and Substance Abuse at Columbia University, *Addiction Medicine: Closing the Gap Between Science and Practice*, 204.

³⁴⁰ *Ibid.*, 10, 11.

³⁴¹ *Ibid.*, 14.

10 included: community reinforcement, behavioural self management, behavioural self-control training, behaviour contracting, social skills training, and behavioural marital therapy.³⁴² However, this list does not overlap in a significant way with the standard treatment interventions commonly employed. One of the concerns about individualized and tailored treatment programs was the cost, but most of the highly effective approaches are also very cost effective. On the other hand, 30 days of TSF at, say, Hazelden, is very expensive and, as we will soon see, highly ineffective.

A lot of work needs to be done to change standard treatment. Hester and Miller noted this in their first edition (1986) and the third edition (2003). Apparently, the message has not gotten through: in 2012, The National Centre on Addiction and Substance Abuse at Columbia's large scale, national review found that there was still a substantial gap between the science of addiction treatment and the practice of addiction treatment. Instead, the treatment components that are in standard use are those which Miller et. al. found had consistently negative cumulative evidence scores, and all came near the bottom of their list: twelve-step facilitation (TSF) at #37, Alcoholics Anonymous at #38, milieu therapy at #40, confrontational approaches at #45, general alcoholism treatment at #47, and educational approaches came in at #48. Surprisingly, and despite the opinion of some clinicians, psychotherapy had a negative cumulative evidence score

³⁴² See William Miller et. al., "What Works? A Summary of Alcohol Treatment Outcome Research," in Reid Hester and William Miller, *Handbook of Alcoholism Treatment Approaches*, 13-64, for a review of the efficacy of different approaches. For a similar review with substantial overlap of studies on treatment efficacy see The National Centre on Addiction and Substance Abuse at Columbia, *Addiction Medicine, Closing the Gap Between Science and Practice* (2012), 85-118; See Nick Heather and Tim Stockwell, eds., *The Essential Handbook of Treatment and Prevention of Alcohol Problems* (Chichester, West Sussex, England: J. Wiley, 2004); See United State, NIDA, *Principles of Addiction Treatment: A Research Based Guide*, (2012), under *Evidence Based Approaches to Drug Addiction Treatment.*

and was #46 on the list.³⁴³ The data regarding standard treatment approaches has not yielded positive results. Currently, the best evidence indicates that clinicians ought to pursue a tailored treatment approach that matches each client with an appropriate treatment modality. Unfortunately, the standard practice for many clinicians is to refer their addicted patients to AA or TSF style treatment. "It is not clear that this is optimal practice, since no evidence suggests that all problem drinkers benefit from what AA has to offer."³⁴⁴

3.4 The Facts on AA and Standard Treatment

12-step style interventions still dominates the treatment of drug and alcohol problems. This section will look at studies specifically on AA, but the results apply to drug treatments which employ TSF-style methods more generally. It is not in any way a criticism of providers who treat addicts with personalized, tailored, EBM interventions. The provision of EBM type methods in addiction treatment needs to be encouraged and expanded. However, in the treatment industry being associated with AA's methods is often worn as a badge of honour (e.g. see Hazleden's website). One can only conclude that evidence- based practices are not in use. "Nowhere in the field of medicine is treatment less grounded in modern science."³⁴⁵ The National Centre on Addiction and Substance Abuse at Columbia compared the state of addiction medicine now to the early

³⁴³ See William Miller et. al., *What Works*, 19, Table 2.3, for a complete review of all 50 different treatment modalities which had three or more studies. Table 2.4 reviews another 42 modalities which are supported by only one or two studies, and they are not ranked by a cumulative evidence score.

³⁴⁴ Barbara S. McCrady, A. Thomas Horvath, and Sadi Irvine Delaney, "Self-Help Groups," in *Handbook of Alcoholism Treatment Approaches: Effective Alternatives*, ed. Reid K. Hester and William R. Miller, 3rd ed. (Boston: Allyn & Bacon, 2003`), 167.

³⁴⁵ Gabrielle Glaser, "The Irrationality of Alcoholics Anonymous," *The Atlantic*, April 2015, 3/6, accessed June 15, 2016, <http://www.theatlantic.com/magazine/archive/2015/04/the-irrationality-of-alcoholics-anonymous/386255/>.

1900s when quacks practiced alongside of trained medical professionals.³⁴⁶ It will soon become apparent that no clinician can ethically recommend 12-step style treatment when EBM methods are available.

AA claims that 75% of their members achieve and maintain sobriety. The so-called *Big Book* of Alcoholics Anonymous states:

Rarely have we seen a person fail who has thoroughly followed our path. Those who do not recover are people who cannot or will not completely give themselves to this simple program, usually men and women who are constitutionally incapable of being honest with themselves. There are such unfortunates. They are not at fault: they seem to have been born that way. They are naturally incapable of grasping and developing a manner of living which demands rigorous honesty. Their chances are less than average. There are those, too, who suffer from grave emotional and mental disorders, but many of them do recover if they have the capacity to be honest.³⁴⁷

Dr. Drew Pinsky (Dr. Drew of VH1's *Celebrity Rehab*) told *Wired* magazine that "In my 20 years of treating addicts, I've never seen anything else that comes close to the 12 steps. In my world, if someone says they don't want to do the 12 steps, I know they aren't going to get better."³⁴⁸

For such an important organization which impacts the lives of millions, and is claimed by supporters inside and out to be the best and the only solution to alcoholism, a surprisingly small amount of scientific investigation has been done regarding AA's effectiveness. AA has performed its own triennial surveys since 1977, and they suggest that AA's success rate is quite low. The results of the first five surveys closely agreed. For new members, after one month 19% remained, after three months only 10% still attended AA, and after one year, only about 5% of the people who first came through the

³⁴⁶ The National Centre on Addiction and Substance Abuse at Columbia, *Addiction Medicine: Closing the Gap Between Science and Practice*, ii.

³⁴⁷ Alcoholics Anonymous World Services Inc., *Alcoholics Anonymous*, 58-60.

³⁴⁸ Lance Dodes, *The Sober Truth*, 56.

door were still participating in AA.³⁴⁹ If we suppose success to be defined as 1 year of sobriety, then AA's success rate is quite low. But many of the 5% who remain will have had several relapses, driving the percentage even lower. Jennifer Harris published a study in the *Journal of Studies on Alcohol* in 2003 that found similar numbers: of people in residential treatment, even though 75% of them had been previously exposed to AA, only 21 percent were 'working the program'.³⁵⁰ In *Heavy Drinking*, Dr. Fingarette reviewed more statistics: after 18 months, 25% of people still attended AA, but only 22% of those had continually maintained their sobriety.³⁵¹ If we combine these two statistics, then that would mean only about 5.5% of people who began with AA became sober members.

AA's apparent success rate seems even smaller when the rate of spontaneous remission is considered. It is a myth that alcoholism is a progressive and incurable disease. Millions have recovered without any intervention. The burden of proof for any putative cure is to clearly show that the treatment exceeds the rate of spontaneous recovery for the targeted problem. If a treatment has no more success than doing nothing, whatever success the treatment does have is likely just a coincidence and any treatment would have fared at least as well. Research estimates put the rate of spontaneous recovery for alcoholism at between 3.7 and 7.4% every year.³⁵² Similarly, a

³⁴⁹ Alcoholics Anonymous World Services Inc., "Comments on A.A.'s Triennial Surveys," Scribd, under, *Appendix C: The First Year*, accessed September 20, 2015, <https://www.scribd.com/doc/3264243/Comments-on-A-A-s-Triennial-Surveys>.

³⁵⁰ Jennifer Harris et al., "Prior Alcoholics Anonymous (AA) Affiliation and the Acceptability of the Twelve Steps to Patients Entering UK Statutory Addiction Treatment.," *Journal of Studies on Alcohol* 64, no. 2 (2003), doi:10.15288/jsa.2003.64.257.

³⁵¹ Herbert Fingarette, *Heavy Drinking: The Myth of Alcoholism as a Disease*.

³⁵² Reginald G. Smart, *Spontaneous Recovery in Alcoholics: A Review and Analysis of the Available Research*, 284.

longitudinal study of 4,000 adults by the National Longitudinal Alcoholism Epidemiological Survey, which was commissioned by the Census Bureau, found that twenty years after the onset of alcoholic drinking patterns, 90% of those who were never treated were either abstinent or “drinking without abuse or dependence.”³⁵³ Surprisingly, only 80% of the treated group reported the same positive results. If we combine the AA statistics with these numbers, it seems the alleged treatment does no better than providing no treatment at all, which calls any claimed successes achieved by AA into question. Perhaps people motivated to follow the AA program, are the kinds of motivated alcoholics who would have recovered anyway. What we need are controlled studies and there are not very many that exist regarding AA’s efficacy.

However, there are a handful of well-designed studies. One was conducted in San Diego in the 1960’s. 301 public intoxication offenders were randomly assigned to three different groups: attend AA, attend a treatment centre, and a control group which received no treatment. The three groups were then followed for at least one year, and the results were based on the number and frequency of further arrests. The control group fared the best, with 44% of its members not being rearrested. The treatment clinic group had 32% percent of subjects not rearrested, and the AA group only had 31% without another arrest. Further, 37% of the control group had two or more arrests, while 40 % of the clinic group and 47% of the AA group were arrested at least twice.³⁵⁴

Another randomized study was done by J.M. Brandsma in 1980. It involved three groups: AA, rational behavioural therapy (RBT), and a control group who could choose any therapy, or none at all. The investigators found “significantly more binge

³⁵³ Deborah A. Dawson, *Correlates of Past-Year Status Among Treated and Untreated Persons with Former Alcohol Dependence*, 773.

³⁵⁴ Charles Bufe, *AA, Cult or Cure*, 94.

drinking at the 3-month follow-up among the people assigned to AA ... All of the lay-RBT clients reported drinking less during the last 3 months. This was significantly better than the AA or the control group's"³⁵⁵ measurement. The researchers concluded that "In this analysis the AA group was five times more likely to binge than the control group and nine times more likely than the lay-RBT group."³⁵⁶

C.D. Emrick (School of Medicine, University of Colorado) found similar results when he conducted a review of all these kinds of reports that emerged between 1976-1989, and concluded that

The effectiveness of AA as compared to other treatments for alcoholism has yet to be demonstrated. Reliable guidelines have not been established for predicting who among AA members will be successful ... Caution was raised against rigidly referring every alcohol-troubled person to AA.³⁵⁷

In 1991, D.C. Walsh published results in the *New England Journal of Medicine*, and reported that

On seven measures of drinking and drug use ... we found significant differences at several follow-up assessments. The hospital group fared best and that assigned to AA the least well; those allowed to choose a program had intermediate outcomes. Additional inpatient treatment was required significantly more often ... by the AA group (63% for the AA group, 38% choice group, 23% hospital treatment) ... An initial referral to AA alone ... involves more risk ... and should be accompanied by close monitoring for signs of incipient relapse.³⁵⁸

There have been some studies (Moos; Fiorentine) that reflected more positively on AA, but they were poorly designed, purely observational in nature, or lacked a control

³⁵⁵ Lance Dodes, *The Sober Truth*, 35.

³⁵⁶ *Ibid.*, 35.

³⁵⁷ Chad D. Emrick, "Alcoholics Anonymous: Membership Characteristics and Effectiveness as Treatment," *Recent Developments in Alcoholism*, 1989, abstract, doi: 10.1007/978-1-4899-1678-5_2.

³⁵⁸ Lance Dodes, *The Sober Truth*, 36.

group.³⁵⁹ The question is then: why do large observational studies suggest that AA is effective, while smaller studies with control groups, which would be included in a Cochrane Review, do not find that correlation? One possible answer is quite simple: people keep going to AA if they think they are getting better, and stop attending if they are not. However, this fact is misunderstood. AA supporters claim “the program works for people who work the program” but do not seem to notice the tautological nature of this claim. It is this error in logic that under-lies most of the claims that are said to support AA’s efficacy. Of course AA works if you work it. But iff AA was a successful program that had rehabilitated millions, then there should be strong comparative evidence to support their claims. However, that evidence cannot be found, and it seems clear that it simply does not exist.

We have already noted the work of Hester and Miller, who edited a large scale and comprehensive evaluation on the effectiveness of various treatment methods: AA-style treatment, together with its main components, did not fare very well.

There have been a few longitudinal studies which had control groups. One published in 1983 by George Vaillant, tracked 100 alcoholics who had participated in 12-step treatment and also several hundred alcoholics who received no treatment. The treated patients did no better than the untreated ones, and they concluded that treatment was “no better than the natural history of the disease.”³⁶⁰ We have already seen another, The National Longitudinal Alcoholism Epidemiological Survey, and the results were surprising. After 20 years, 80% of the group that received treatment reported that they were abstinent or that their drinking was no longer problematic. The group which

³⁵⁹ Ibid., 40-44.

³⁶⁰ George E. Vaillant, *The Natural History of Alcoholism: Causes, Patterns, and Paths to Recovery* (Cambridge, MA: Harvard University Press, 1983), 284.

received no treatment did even better, with 90% reporting the same positive results. Both groups showed improvement over 20 years, but the group that did not receive AA treatment did slightly better. Of course, this directly contradicts the progressive disease concept of alcoholism and the idea that total abstinence is the only treatment option available. Both of these beliefs are central tenets of AA's ideology.

Another way of determining the effectiveness of AA treatment is by looking at recidivism rates, and those rates are ridiculously high. In 1992, the NCADD reported that nearly 13.8 million Americans had problems with alcohol, and that a shocking 1.9 million Americans had undergone some form of 12-step treatment in the previous year. Given these statistics, on average, every alcohol abuser would have received treatment in just over an 8 year span. If treatment was effective, then there should have been a drastic cut in the levels of alcoholism in the United States in the subsequent 24 years. But that has not happened. Instead, the billions of dollars invested in treating almost two million addicts per year has had little effect on the number of alcohol abusers. The *National Treatment Center Study Summary Report* found that recidivism rates at inpatient addiction facilities was 40%.³⁶¹ In light of the background rate of spontaneous recovery, "[t]he treatment industry's drumbeat chant, "Treatment Works!," is an outright lie."³⁶²

The studies that have cast AA in a positive light have been purely observational or lack a control group that would help make sense of the results. Without a comparison, we have no evidence at all of effectiveness. The results only point to the tautological claim that 'AA works if you work it,' while ignoring the evidence showing that the vast majority of people exposed to AA's ideology and methods do not find it

³⁶¹ United States, NIAAA, *The National Treatment Center Study*, 17.

³⁶² Charles Bufe, *AA Cult or Cure*, 98.

particularly helpful. There have been no properly randomized and controlled studies that point towards AA being even a little bit helpful. Given the background rate of spontaneous remission it can be questioned if AA has had any positive effect, or whether any seeming successes of AA are just a matter of the 'disease' of alcoholism running its course.

If we want to implement evidence-based practices in the treatment of addiction, then we ought begin with the research of the Cochrane Collaboration. We have already seen that they do not perform studies but study studies, and their findings on TSF-style treatment are devastating. The Collaboration does not consider purely observational or uncontrolled studies, and they found only eight well designed studies of AA with a total of 3417 participants. Their conclusion was clear and unambiguous: "12-step and AA programmes are promoted world wide. Yet experimental studies have on the whole failed to demonstrate their effectiveness in reducing alcohol dependence or drinking problems when compared to other interventions."³⁶³ They also urged caution: "People considering attending AA or TSF programmes should be made aware that there is a lack of experimental evidence on the effectiveness of such programmes."

3.5 Equipoise

We have at least equipoise, and arguably we have grounds for declaring continued reliance on AA and twelve-step programs to be a form of malpractice. There is clearly a deep and profound disconnect between scientific evidence and clinical practice in the field of addiction. Clinicians cannot ethically continue to offer standard treatment with no evidence of its effectiveness when there are real evidence-based alternatives that are effective and, in addition, highly cost effective. No informed

³⁶³ Marcia Ferri et. al., *Alcoholics Anonymous and other 12-step Programmes for Alcohol Dependence*, 11.

clinician or patient could justifiably choose the standard treatment. This makes continued reliance on AA and twelve-step programs medical malpractice. “Nothing short of a significant overhaul in current approaches is required to bring practice in line with the evidence and with the standard of care for other public health and medical conditions.”³⁶⁴

How a concept is arrived at has important practical implications because it dictates how that concept is employed. In the case of the concept of addiction, how the concept of addiction emerged matters because it affects the way in which addicts are to be treated. The MCA could be rejected on the grounds that it has led to terrible treatment results alone, but there are many other good reasons. The chapter on the history of the MCA revealed that the way we came to hold this concept is highly suspicious. The loss of control hypothesis and the brain disease view began as intuitive explanations and assumptions about the experience of addiction and they remain assumptions to this very day. Both have been tirelessly promoted by many scientists but never established by science. In fact, Chapter Two demonstrated that both loss of control and the disease view are bad assumptions that do not map onto the external world in a rich and systematic manner. With such misleading concepts, it is no wonder that our treatment efforts have failed the majority of addicts so miserably. The MCA supports the standard TSF-style treatment, but these interventions are terribly ineffective for the majority of addicts who are exposed (often coercively) to them. The 12 steps might be a meaningful way of life and valuable support to some addicts, but they are not any kind of medical treatment and there is no evidence that supports their efficacy. NIDA has been on the front line of a propaganda war that is trying to convince us, or

³⁶⁴ The National Center on Addiction and Substance Abuse at Columbia University, *Addiction Medicine: Closing the Gap Between Science and Practice*. 14.

'prove,' that addiction is a chronic brain disease which causes a fundamental loss of control. But NIDA's outside-in, bottom-up neural deterministic account is focused (incorrectly) on the minority of addicts who report they want to stop but cannot help themselves, while ignoring the vast majority of addicts who permanently resolve their addictions without any clinical intervention. It ought to be of great interest how these addicts quit on their own despite being influenced by large scale changes in their brain; changes that are assumed to render them unable to control their urge to use the substance whose use has produced those changes. From a scientific perspective, it seems likely that studying the brains of spontaneous remitters, scanning and comparing them with the brains of chronic relapsers, could be a valuable step in research on addiction. If neurobiology is ultimately to contribute to the treatment of addiction, then the MCA must be rejected. Instead of telling the addict she has a brain disease causing loss of control, we can tell her that she has an unlimited capacity, grounded in neuroplasticity, for large-scale, personal change. This claim is broad and the evidence for it is not yet conclusive, but it is already much better supported than the MCA, and it may also help to empower her in her efforts to improve her life.

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