

The book covers many areas and he makes reference to societally promoted and acceptable addictions like smoking, over-consuming or technology. For instance, it has been found that most people check their smart phones 150 times per day and young adults are sending an average of 110 texts per day and forty-six per cent of smart phone users say that their devices are something they couldn't live without. Gabor Mate writes 'there are no new disorders here, only new targets for the universal and age-old addiction process, new forms of escape.' Additionally, Dr Mate situates himself in the story both as someone who has dealt with his own hungry ghosts and behavioural addictions, but also, as someone who has worked as a medical doctor with hard-core substance abusers, people who are marginalized, deeply traumatized and enslaved by addictions, in an urban drug ghetto. He also suggests that addictive behaviours lie *on a continuum* and discusses how other coping mechanisms, aside from self medicating, like interests and passions can also become compulsions and addictions. One valuable aspect of his discussion is his focus on *the addiction process* itself. He discusses how mind and brain processes are the same in both substance and behavioural addictions, as is 'the psycho-spiritual emptiness that resides at the core'. He writes; 'the addiction process— governs all addictions and involves the same neurological and psychological malfunctions. The differences are only a matter of degree.'

However, before I write more about the book, I will very briefly refer to some of the etiological models (the notes below come from an old paper from an introductory course I did on addiction) to give an idea of the most common etiological beliefs around addictions. More often than not, a combination of the various etiologies provided within each perspective below, are closer to the truth.

'The moral model postulates that addiction might to some extent be viewed as a personal choice and result of 'free will', but from a social psychodynamically informed perspective, individuals can exert agency only within the limits set by sociocultural and environmental constraints and their own unconscious processes. Additionally, from an existential/phenomenological approach it is suggested that people have *situated freedom*, which is constrained by physical and social factors. On the other hand, sociocultural models suggest that the use patterns and attitudes about alcohol that family members and peers hold are highly linked to the levels and the patterns of alcohol consumption and addiction that the individual engages in. Important factors may be parental use or permissiveness or abusive and dysfunctional family environments (Lawson, 1992, cited in Fisher and Harrison, 2009). Furthermore, a social learning theory model suggests that substance use may be initiated by environmental stressors or modeling by others in our social groups as an appropriate reaction to stress and pain, which is then quickly reinforced by the effects of the drug or alcohol (Alan Marlatt, 1985, cited in Fisher and Harrison).

Psychological models suggest that problematic use of substances is secondary to other psychological problems like anxiety, pain, fear, and that alcohol or drugs are used to self-medicate and relieve emotional distress. On the other hand, Jellinek's disease model views addiction as a primary disease (not secondary to other conditions). However, individuals with addictions are not a homogenous group and

Miller claims that alcoholics are as variable in personality as non-alcoholics (1960; 1995, cited in Fisher and Harrison, 2009); therefore, perhaps there are more ways that could be applied to both how we view addiction, prevention, treatment and relapse interventions. Unlike the moral model here responsibility is removed from the addicted individual, but also from society.

Within a **psychodynamic perspective** it is suggested that one's sense of self-worth and self-esteem may be a contributing factor to one's relationship with substances and one may medicate their sense of inadequacy and perceived lack of worth. Jean Kirkpatrick who has founded Women for Sobriety, believes that especially for women sobriety depends on strong self-esteem (1990, cited in Fisher and Harrison, 2009). This is supported by empirical findings that suggest that female alcoholics, for instance, have lower self-esteem in comparison to men alcoholics and non alcoholic women; however, the variable (self-esteem) might represent different meanings in men and women..... (Walitzer et al., 2006).

From a **Freudian and a developmental approach** it is suggested that individuals with dependency needs tracing back to their childhood can be more prone to addictions. It is argued that if basic needs for nurturance and love were not met during early years then one may grow up depending on others and constantly in search of meeting these needs from outside sources. Consequently, a dependent relationship with substances can easily be developed. For instance, many studies have shown how early traumatic experience is related to depression and alcohol problems in adulthood (cited in Mirsal et al., 2004).

Finally, the **biopsychosocial model** (Kumpfer et al. 1990, cited in Fisher and Harrison, 2009) provides a more integrated approach and considers addiction to be the result of the interaction of biological, psychological, cognitive, social developmental and environmental variables. This eclectic perspective integrates the previous levels of exegesis, which seems a more effective approach when attempting to explore and explain complex human behaviour and suffering' (Tonya Alexandri, 2011).

Dr Mate uses a **humane and holistic approach** to discuss a highly complex issue. One could say he adopts a broad biopsychosocial approach. He believes that addiction is **neither a choice nor primarily a disease** and that it is a human being's desperate attempt to cope with emotional pain, abject fear, deep discomfort with the self and loss of connection and control, At the beginning of the book he writes that to understand we need to explore the causes impelling people to addictions. He cites Dr Bessel van der Kolk who says "People who feel good about themselves don't do things that endanger their bodies.... Traumatized people feel agitated, restless, tight in the chest. You hate the way you feel. You take drugs in order to stabilize your body." Populations of substance abusers are often found to meet the criteria for anxiety and post-traumatic stress disorders. Stress, is a major cause of continued drug dependence. There is mention in the book of the **functionality of addiction**, at least temporarily. Addiction is a deeply ingrained response to stress, an attempt to cope with it through self-soothing. Maladaptive though it may be in the long term, it is effective in the short term.

Dr Mate believes that **targeting behaviour alone** cannot stem the tide of addiction so long as the system fails to recognize the sources of this problem in trauma and social dislocation. He believes that viewing addiction simply as an illness, either acquired or inherited, narrows it down to a medical issue, when in reality addiction has biological, chemical, neurological, medical, psychological, emotional, social, political, economic and spiritual underpinnings. He supports a multilevel exploration because even though on the physiological level drug addiction is a matter of brain chemistry gone askew under the influence of a substance and even before the use of substances begins, **human beings cannot be reduced to their neurochemistry or any other neurobiological, psychological or sociological data**, and also, people's brain physiology doesn't develop separately from their life circumstances and emotions. Our brains are also resilient organs and important circuits continue to develop throughout our entire lives, and they may do so even in the case of severe early childhood trauma and abuse, and even in the case of people with hardcore drug addictions. Dr Mate writes 'that's the good news, on the physical level. Even more encouraging, we will find that we have something in or about us that transcends the firing and wiring of neurons and the actions of chemicals. The mind may reside mostly in the brain, but it is much more than the sum total of the automatic neurological programs rooted in our pasts. And there is something else in us and about us.' This can be termed soul, spirit, *Self* with a capital s, core essence.... It is that place that lies below the burial grounds of our experience and our terrified ego and which can play a transformational role.

Dr Mate tackles questions like **why** addicted people may have relatively few dopamine receptors, which means that their natural incentive system is under functioning to begin with, and this may be one of the biological bases of addictive behaviours. He believes that such lacks are not random occurrences, but are predictable and have preventable causes. The **three environmental conditions essential to optimal human brain development** are nutrition, physical security and consistent emotional nurturing from caring and attuned adults. Attuned emotional interactions with parents stimulate a release of natural opioids in an infant's brain and this endorphin surge promotes the attachment relationship and the development of the child's opioid and dopamine circuitry. Our **opioid circuits and dopamine pathways** are important components of our limbic system, where our emotions (love, joy, pleasure, pain, anger and fear) that initiate and maintain activities necessary for survival are processed. The majority of chronically hardcore substance-dependent adults have experienced severe early adversity that has left an indelible stamp on their development. Early adverse experiences reduce the numbers of opiate and dopamine receptors and result in chronically high levels of the stress hormone cortisol, which shrinks brain centres such as the hippocampus and disturbs normal brain development in many other ways. This often leads to reduced ability to anticipate consequences and to inhibit inappropriate or self-destructive behaviors. Dr Mate writes that 'If it wasn't enough that powerful incentive and reward mechanisms drive the craving for drugs, on top of that the circuits that could normally inhibit and control those mechanisms are not up to their task.'

**Three factors** need to coincide for substance addiction to occur: a susceptible organism; a drug with addictive potential; and stress. Changes are observed in the brains of addicted individuals, in relation to white matter, which practically, means a diminished ability to make new choices, learn and acquire new information and adapt

to new circumstances. Studies have shown that grey matter density is also reduced in the cerebral cortex. Also, in the part of the cerebral cortex responsible for regulating emotional impulses and for making rational decisions, addicted brains have reduced activity, altered structure and branching of nerve cells. Some of these changes have also been seen in brains of people with chronic nicotine use. Lack of attuned relatedness with caregivers and attachment injuries also compromise the maturation process of a child. Dr Mate says ‘a child must become unique and separate from other individuals. She has to know her own mind and not be overwhelmed by the thoughts, perspectives or emotional states of others. The better differentiated she becomes, the more she is able to mix with others without losing her sense of self. The individuated, well-differentiated person can respond from an open acceptance of his own emotions, which are not tailored either to match someone else’s expectations or to resist them. He neither suppresses his emotions nor acts them out impulsively.’

Dr Mate clarifies that there is no such thing as a gene for alcoholism and that there could not be one because *genes* cannot determine even simple behaviours, let alone complex ones like addiction. He cites Lance Dodes who writes that “the most important finding of research into a genetic role for alcoholism is that there is no such thing as a gene for alcoholism,” ..... “Nor can you directly inherit alcoholism.” He explains that genes influence traits like temperament and sensitivity, which impact how we experience our environment, and thus, how we could potentially respond to stressors, but no combination of personality traits can by themselves cause addiction. However, genes are controlled by their environment, and in effect, they are turned on and off by the environmental experiences. He discusses how *epigenetic effects* are powerful during early development and have been shown to be transmittable from one generation to the next, without causing any changes in the genes themselves. Stresses during pregnancy can impact the developing human being and pre- and post-natal conditions can be recreated from one generation to the next in such ways that impair a child’s healthy development without any genetic contribution. Ways of parenting are passed down and are often passed on biologically, but not through DNA transmission from parent to child.

According to Dr Mate one reason why genetic and medical assumptions are so widely accepted and enthusiastically embraced is due to our human preference for easily understood linear explanations, and the fact that genetic and medical explanations alone, remove responsibility at an individual and social level. We need not examine our individual practices, parenting or societal factors like injustice, violence, segregation, poverty. Dr Mate writes: ‘It serves *a deeply conservative function*: if a phenomenon like addiction is determined mostly by biological heredity, we are spared from having to look at how our social environment supports, or does not support, the parents of young children; at how social attitudes, prejudices and policies burden, stress and exclude certain segments of the population and thereby increase their propensity for addiction’.

His multifaceted presentation of the harsh reality of addiction includes the theme of powerlessness that many drug addicted people often feel and the power imbalances that often occur during their interactions with the medical and legal system. Dr Mate believes that the drug addict is the scapegoat of our contemporary societies. He writes that ‘on social and political levels they represent human sacrifices.’ This reality reinforces early *disempowering and asymmetrical experiences*. Dr Mate writes:

‘imprinted in the developing brain circuitry of the child subjected to abuse or neglect is fear and distrust of powerful people, especially of caregivers. In time this ingrained wariness is reinforced by negative experiences with authority figures such as teachers, foster parents and members of the legal system or the medical profession’.

He also touches upon the fact that much of our economic and cultural life caters to people’s craving to escape mental and emotional distress and self exploration and reminds us that substance addictions are only one specific form of blind attachment to harmful ways of being and wonders why we despise, ostracize and punish the drug addict when as a social collective we share the same blindness, and also, engage in similar rationalizations and destructive behaviours. He writes: the addicted person ‘is *not born but made*. His addiction is the result of a situation that he had no influence in creating. His life expresses the history of the multigenerational family system of which he is a part, and his family exists as part of the broader culture and society. In society, as in Nature, *each microcosmic unit reflects something of the whole*. In the case of drug addiction, the sins of entire societies are visited unevenly on minority populations.’

Many more aspects of the addiction reality are discussed like how the quality of circumstances and surroundings play a role in relapse since environmental cues associated with drug use (e.g. paraphernalia, places, people) are powerful triggers for use and relapse because they trigger dopamine release. This is similar to the process of trauma cues that trigger emotions, cortisol release, sympathetic reactivity and unhelpful responses. As I mentioned above, how much agency we can exert and the level of freedom we have to choose depend on how present and aware of our automatic programming and unconscious processes we can be. Dr Mate presents findings from research and work with individuals with obsessive, compulsive behaviours conducted by Dr. Schwartz on OCD, which as he says may be ‘an extreme example of how the brain can dictate behaviour even against our will, but OCD sufferers are different from other people only in degree’. He continues ‘Dr. Jeffrey Schwartz and his colleagues at UCLA have shown that in the brains of people with obsessive-compulsive disorder, new circuitry can be successfully established that overrides the ill-functioning circuits. Much of what we do arises from automatic programming that bypasses conscious awareness and may even run contrary to our intentions’. Freedom of choice lies on a continuum and even though we have freedom, we can only exercise it when we are present and ‘strive for awareness, when we are conscious not just of the content of the mind but also of the mind itself as a process. When not governed by conscious awareness, our mind tends to run on automatic pilot.’ (Gabor Mate).

The book includes discussions on the more or less effective state policies, decriminalization, prevention and harm reduction interventions, twin studies fallacies and the risk factor of having an untreated attention deficit problems or disorders, abstinence and sobriety, the need to integrate people with hard core addictions into the web of normal social life, neuroplasticity, compassion and courage, and the spiritual aspect of addictive behaviours. At the core of addiction and depression is an emptiness based in fear and shame. As I have written in previous posts early adverse experiences and abuse destroys a child’s connection with others and her or his essential self and faith in a nurturing universe or higher power. Dr Mate believes that addiction is one consequence of spiritual deprivation and a sense of being deficient at

the core. He suggests that one essential feature of the recovery process is the use of mindfulness techniques and meditation, as well as, the building of an external environment that can support a person's move towards conscious awareness and self compassion.

After reading the book I felt that it touched upon all the important issues of our contemporary inner and outer lives from our conception, Dr Mate believes that 'many phenomena in public life can be understood if viewed through the prism of addiction'. I would add that many phenomena in our private and inner lives could also be explored through these lens since addictive behaviours are triggered by a complex set of neurological and emotional mechanisms that develop inside a person, who is of course always situated within smaller and broader social contexts. I was also reminded of the song: *There But For Fortune*, written by Ochis Phil and sung by Joan Baez

Show me the prison / show me the jail  
show me the prisoner whose life has gone stale  
and I'll show you, young man,  
with so many reasons why,  
there but for fortune go you or I

show me the alley / show me the train  
show me the hobo who sleeps out in the rain  
and I'll show you, young man,  
with so many reasons why  
there but for fortune go you or I

show me the whiskey stains on the floor  
show me the drunkard as he stumbles out the door  
and I'll show you, young man,  
with so many reasons why,  
there but for fortune go you or I

Show me the country where the bombs had to fall  
show me the ruins of the buildings, once so tall  
and I'll show you young man  
with so many reasons why,  
there but for fortune go you and I