

## On the biomedicalization of alcoholism

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**Abstract** The shift in the prevailing view of alcoholism from a moral paradigm towards a biomedical paradigm is often characterized as a form of biomedicalization. We will examine and critique three reasons offered for the claim that viewing alcoholism as a disease is morally problematic. The first is that the new conceptualization of alcoholism as a chronic brain disease will lead to individualization, e.g., a too narrow focus on the individual person, excluding cultural and social dimensions of alcoholism. The second claim is that biomedicalization will lead to stigmatization and discrimination for both alcoholics and people who are at risk of becoming alcoholics. The third claim is that as a result of the biomedical point of view, the autonomy and responsibility of alcoholics and possibly even persons at risk may be unjustly restricted. Our conclusion is that the claims against the biomedical conceptualization of alcoholism as a chronic brain disease are neither specific nor convincing. Not only do some of these concerns also apply to the traditional moral model; above that they are not strong enough to justify the rejection of the new biomedical model altogether. The focus in the scientific and public debate should not be on some massive “biomedicalization objection” but on the various concerns underlying what is framed in terms of the biomedicalization of alcoholism.

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## Introduction

Currently we are witnessing a shift in the prevailing view of alcoholism. Influenced by science, the concept of alcoholism is increasingly understood as a chronic brain disease with a neurobiological and genetic basis [1, 2]. In a recent brochure titled “Alcoholism: Getting the Facts” from the National Institute on Alcohol Abuse and Alcoholism (NIAAA) it is claimed, “In our society, the myth prevails that an alcohol problem is a sign of moral weakness” [3, p. 3]. However, in this brochure it is also stated, “In fact, alcoholism is a disease that is no more a sign of weakness than is asthma” [3, p. 3].

The first quotation illustrates that in the public mind, alcoholics are still considered weak-willed persons who have little or no willpower to resist alcohol. Alcoholics are held morally responsible for their destructive way of life. And they are morally condemned for not being able to control their compulsion to drink. The second quotation illustrates the shift towards a biomedical model of alcoholism.

The conceptual shift from the moral paradigm to a biomedical paradigm is often characterized as a form of biomedicalization [4–7]. The concept of biomedicalization is derived from the more traditional concept of medicalization and adds a biological component to the medical component, thus stressing the significance of molecular biology within the biomedical paradigm. The concept of biomedicalization has both descriptive and evaluative connotations. Sometimes it is used to describe a process in which different aspects of life are increasingly brought under the guidance of biomedicine [8]. More often the term has an evaluative meaning and refers to a process with predominantly negative implications [9, 10].

In this article, we examine the “biomedicalization objection” and focus on three important concerns underlying the claim that the biomedicalization of alcoholism has serious drawbacks. The first concern is that the new conceptualization of alcoholism as a chronic brain disease will lead to individualization, ignoring other dimensions of the phenomenon [6, 11, 12]. The second concern is that biomedicalization will lead to stigmatization and discrimination for both alcoholics and people who are at risk of becoming alcoholics [13]. When we use the term “alcoholics” it refers to both problem drinkers and alcohol addicts. We are aware that the term “alcoholics” can have negative connotations (“alcoholics are people who can’t control themselves”). For the sake of practicality, however, we will use this term, although in a neutral and descriptive manner. The third concern is that as a result of the biomedical point of view, the autonomy and responsibility of alcoholics and possibly even persons at risk may be unjustly restricted [14, 15]. These three concerns will be critically evaluated. Our conclusion is that the claims against the biomedical conceptualization of alcoholism as a chronic brain disease are neither specific nor convincing. Not only do some of these concerns also apply to the traditional moral model; beyond that, they are not strong enough to justify the rejection of the new biomedical model altogether.

## The individualization of alcoholism

It is sometimes argued that conceptualizing alcoholism as a chronic brain disease with a genetic component reduces alcoholism to a problem (a disease), which is primarily or exclusively located at the level of the individual [6]. When seeing alcoholism as a brain disease, the focus will be on neurobiological and genetic strategies for the prevention, diagnosis and treatment of alcoholism. Little or no attention then goes to the contribution of the social environment (parents, family, friends, peers, community, society) to the problem of alcoholism [6]. Possible social co-determinants of alcoholism such as poverty, social inequality, and easy availability of alcoholic beverages disappear from sight [12]. Cultural dimensions of alcohol use, alcohol-related problems, and alcoholism are excluded.

Here two claims can be identified. The first is the presumption that conceptualizing alcoholism as a chronic brain disease presupposes an interpretation of alcoholism exclusively in biomedical terms [6, p. 2]. An example is the understanding of alcoholism as a brain dysfunction only. The second claim is that this neuro-biological reductionism has adverse effects. In particular, in preventive medicine the emphasis may be put on individual genetic risk factors influencing the susceptibility for alcoholism instead of social factors such as poverty or the easy availability of alcohol.

How should we evaluate these claims? Concerning the first claim, it could be questioned whether seeing alcoholism as a brain disease necessarily presupposes biological reductionism. The claim that alcoholism is a brain disease is usually made in the context of the so-called biopsychosocial model, which maintains that (alcohol) addiction is a multidimensional phenomenon in which biological, genetic, psychological, and social components operate together [16]. As Leshner emphasizes, “Addiction is not just a brain disease. It is a brain disease for which the social contexts in which it has both developed and is expressed are critically important” [2, p. 46]. Considering the implications of this view, Leshner claims that treatment strategies should include biological, behavioral, and social-context elements: “Not only must the underlying brain disease be treated, but the behavioral and social cue components must also be addressed, just as they are with many other brain diseases, including stroke, schizophrenia, and Alzheimer’s disease” [2, p. 46].

It might be argued that although the biopsychosocial model is the dominant approach to addiction, until now it has had relatively little impact on how medicine is practiced today [6]. This, however, does not necessarily disqualify the biopsychosocial model, as there always is the problem of translation and implementation. Obviously it is false that biomedical models necessarily entail biological reductionism. The lesser but more realistic claim can be made that at least some of the proponents of biomedical approaches simply pay lip service to the biopsychosocial model. This claim implies that the proponents suggest that they are aware of the complexities and multifaceted nature of alcoholism—as the abovementioned Leshner does—but in reality nevertheless take recourse to a reductionist, unicausal biological approach. The lip service claim surely deserves closer examination, and, as a matter of fact, people who invoke psychosocial and integrative models not infrequently pay lip service to them. We should be aware, however, that people who

from a psychosocial perspective invoke the biopsychosocial may also be paying lip service to this model.

More important is the second, empirical claim concerning possible adverse effects on (preventive) medicine. The main concern is that prevention and treatment of alcoholism is predominantly aimed at the individual, and not at the individual's environment and social circumstances. Concentrating exclusively on genetics and neurobiology could encourage the idea that alcoholism is primarily an individual health problem that can be traced to defects in the individual's genetic and neurobiological make up. The rise of neuroscience and genetics may be both an expression and a catalyst of this development [6]. Consequently, in prevention, the focus may be on individual genetic risk factors influencing the susceptibility for alcoholism instead of social factors such as the availability of alcohol or poverty. The broader "culture of alcohol" in which alcohol consumption is taken for granted or even promoted remains out of sight. And in treatment the focus may be on individual pharmacological treatment instead of family or group oriented interventions (behavioral, psychotherapeutic, self help, mutual help, etc.), or a combination of these interventions. Alcoholics could be led to believe that there is a pill for every ill [17].

Individualization, whether it is a result of a biomedical approach to alcoholism or not, is one-sided and reductionist, and thus cannot be justified. However, the claim that a biomedical approach is likely to lead to individualization is not self-evident. Neither is it clear beforehand that individualization is exclusively attached to the biomedical paradigm, and not to other approaches. On the contrary: the traditional moral view seems to be inherently individual. In and of itself, a biomedical approach towards alcoholism does not need to deny that non-biomedical factors play a (significant) role in the causation and possible treatment and management of alcoholism, unless it is claimed that only biomedical factors play a role, which beyond that are considered to be relevant only at the level of the individual person. If the biomedical approach is integrated in a biopsychosocial perspective, then it is possible to identify biological, personal, and social factors and learning experiences. Such an approach may show how these social factors and experiences may have immediate or more distant influences on a person's disposition to use alcohol. It also shows that social and individual factors can be influenced by the consequences of alcohol use. Because research shows that (excessive) alcohol consumption causes neurobiological damage to the developing brain, and because of the existence of genetic susceptibilities, it is considered important by biomedical researchers that social interventions aimed at the reduction of alcohol consumption are implemented.

### **Stigmatization and discrimination**

The second concern is that the new biomedical paradigm of alcoholism will lead to stigmatization and discrimination of both alcoholics and those who are genetically predisposed. The view that alcoholism is a chronic brain disease suggests that the adverse changes in the brain resulting from alcohol use may be permanent. This view can have implications for the way in which alcoholics are perceived: "Once an

alcoholic, always an alcoholic.” The perception of incurability may be reinforced by the genetic component. The combination of (presumed) incurability and genetic susceptibility could also stigmatize blood-relatives of alcoholics (especially children) whose risk to become alcoholics themselves may be overestimated when combined with the common lay wisdom that “alcoholism runs in families.” Beyond that, so it is argued, the conceptualization of alcoholism as a genetic brain disease could result in a specific form of stigmatization, i.e. victim blaming. The growing knowledge about genetic susceptibility to alcoholism may lead to a practice in which people increasingly will be held responsible for the adverse consequences of their addiction (traffic accidents, domestic violence, harm to health).

There may be a close relation between stigmatization and discrimination [18]. Stigmatization may lead to discrimination—for instance, when alcoholics are unjustly excluded from insurance. Persons with a genetic predisposition to alcoholism may be discriminated against on the basis of the false deterministic belief that “having the predisposition is equal to having the disease.” Imagine the hypothetical case of a bus driver with an impeccable record of duty who is fired because a test has indicated a predisposition for alcoholism [13]. How should the stigmatization and discrimination claims be evaluated?

Some authors deny that the conceptualization of alcoholism as a brain disease results in stigmatization and discrimination [2]. They argue that the transition to a more biomedical approach of alcoholics results in the destigmatization and deculpabilization of alcohol addicts. If alcoholics are seen as people who are ill, they no longer will be condemned as morally weak persons [2, 19, 20]. These authors resist the traditional view that alcoholism is primarily a mental and moral problem. According to this moral view (which still has contemporary defenders), alcoholics should feel guilty and be ashamed for not being able to resist the call of alcohol [21]. Proponents of a biomedical approach, however, believe that alcoholics should not be seen as morally bad persons. Destigmatization, it is argued, will have positive effects, such as opening the door for a more enlightened health policy that is less punitive and more caring towards alcoholics [19]. Furthermore, it may increase access to medical treatments [22] and provide new opportunities for alcoholics to participate more fully and equally in society. Alcoholics may have a stronger motivation to make use of health care services in order to be treated, because possible obstacles like feelings of guilt or shame may be reduced. Finally, destigmatization might contribute to less social isolation.

What the implications of the biomedical paradigm for issues of (de)stigmatization, discrimination and (de)culpabilization will be is an empirical question that cannot yet be answered. Already, some empirical research on these issues is being conducted, particularly examining the views of ordinary people regarding moral attribution and the exoneration of actors for undesirable behaviors [23, 24]. Studies of folk intuitions suggest that when the causes of an action are described in neurological terms, they are not found any more exculpatory than when described in psychological terms [24]. This would suggest that biomedicalization will not necessarily lead to deculpabilization.

Concerns about discrimination and stigmatization cannot be wholly dismissed [25]. It is conceivable that “biomedical” stigmatization strengthens the already

existing negative “moral” attitude, because having a disease does not necessarily excuse the person from making responsible decisions. Above that, medical and genetic judgments may replace the stigmatization that is based on moral condemnation. If alcoholics are seen as suffering from an incurable, chronic disease, they may be stigmatized and discriminated against by employers. At the same time, people with a genetic risk for alcoholism may be discriminated against. Obviously, these issues are part of the general debate about adequate protections for access to employment and insurance for patients as well as for people carrying genetic susceptibilities for disease.

It seems critically important to fight genetic determinism and to raise public awareness about the fact that genetic susceptibilities for alcoholism have a relatively low penetrance compared to risk factors for traditional Mendelian disorders like Huntington’s disease: many people genetically “at risk” will never become alcoholics. Such public awareness may well lessen the risk of stigmatization and discrimination of people with a genetic risk for alcoholism.

### **Limitation of liberties**

The third concern related to the biomedical conceptualization of alcoholism as a genetic brain disease is that it will threaten the individual autonomy of alcoholics; in particular, that the use of pressure and coercive treatment towards them will increase [14]. Both the use of pressure and coercion are liberty-limiting measures [26]. By pressure we refer to different kinds of interactions aimed at influencing the behavior of alcoholics like the use of inducements and threats. Although such pressures may aim at the enhancement of a person’s future liberty and autonomy, at the same time they are actually liberty-limiting. Coercion involves the use of interventions by which alcoholics may be compelled to take treatment against their will by detention in a hospital and, if necessary, by the use of physical force [27].

This concern does not necessarily imply that all critics of biomedicalization view any limitation of the freedom of alcoholics as morally problematic in the same way that Thomas Szasz views any involuntary treatment of patients with mental illness as morally unjustified [28]. What critics do fear is that the biomedicalization of alcoholism will make the use of pressure and coercion towards alcoholics increasingly likely and socially acceptable. Since individual liberty and personal autonomy are central goods in modern Western societies, there is a moral presumption against liberty-limiting measures [29, 30]. This implies that the use of pressure and coercion needs moral justification.

There are two aspects to this issue. Firstly, there is the empirical question whether it is probable that more pressure and coercion towards alcoholics will actually appear. And secondly, there is the normative question whether the use of pressure and coercion in treatment should be considered as necessarily morally wrong and unjustified.

### Will the use of pressure and coercion increase?

Some believe that the use of pressure and coercion will be likely to increase [15]. Two considerations underlie this belief. The first is that neurobiological insights suggest that long-term abuse of alcohol causes adverse changes in the human brain (neuroadaptation). Often the metaphor of the “hijacked brain” is applied: the hijackers (alcohol) are taking over control and determine behavior [22]. The addict is subjected to factors that are beyond his control. Some argue that the neurobiological perspective implies that the autonomy and decision making capacities of the severely, long-term alcohol addicted person is undermined. This viewpoint would justify more pressure and coercion towards alcoholics for their best interest. Such paternalistic pressure and coercion aims at helping the alcoholic to regain control over his own actions [31]. The second consideration involves the prospect of better and more effective treatments for alcoholism. Assuming that in the short term better treatments (more effective and more specific) will become available, it is argued that it is in the best interest of addicted individuals that treatment takes place [15]. This raises the question whether alcoholics remain free to choose whether or not to undergo effective treatment [14].

There is ongoing debate about coercive treatment of unwilling (alcohol) addicts [32]. Part of the moral justification of coercive treatment is the effectiveness of interventions [33]. Should alcoholics be coerced to take part in treatment programs in order to prevent harm to self and others [34]? To the extent that medical treatments are effective and can be safely used, the question of freedom of choice of the addicted person becomes increasingly relevant, particularly if the patient refuses treatment.

It is hard to predict whether pressure and coercion will increase as a result of the biomedical paradigm as compared to the traditional moral model. Anyway, it appears that both the moral foundation and the type of coercive interventions may be different. In the traditional model, moral condemnation by the community was the basis for intervening primarily in a punitive way. On the basis of the biomedical model, claims are based on scientific arguments, either in regard to defects in the autonomy of the addicted individual, or with reference to better treatments. Moral condemnation often worked in subtle and informal ways—for instance through social pressure in the community. In the biomedical model, coerced treatment will be embedded in a formal and legal system in which an “objective” medical judgment plays an important role.

The conclusion is that it remains to be seen whether a biomedical approach will lead to more pressure or coercion towards alcoholics. It is probable that the type of coercive interventions will change because of the different underlying motives and justifications. In a disease model, coercive therapeutic interventions may replace more punitive interventions that are connected to traditional models based on moral badness. Clearly, seeing alcoholism as a chronic brain disease does raise further normative questions concerning autonomy and responsibility.

## Is pressure or coercion always bad?

The second, normative issue is how the use of pressure and coercion must be evaluated from a moral point of view. Is it necessarily a bad thing if the freedom of alcoholics is restrained? The concern regarding a possible increase of the use of pressure and coercion toward alcohol addicts is based on the presumed wrongness of liberty-limiting measures. However, here a distinction is necessary between justified and unjustified use of pressure and coercion.

There are two main moral arguments to justify coercion in this case. The first is the prevention of harm to others that may not be criminally liable, for instance in cases of domestic violence. The second is the prevention of harm to self, for instance in case of alcoholics who completely neglect their own well being. An exact analysis of how these principles, the harm principle and the principle of paternalism, should be applied is beyond the scope of this paper (see [33]). Elements involve notions of effectiveness of interventions, proportionality (i.e., reasonable relationship between goal and means), subsidiarity (i.e., least restrictive alternative), unintended consequences, decision-making capacity, and the magnitude and seriousness of the harms to be prevented.

The question is whether it is always right to hold on to the principle of respect for autonomy in the provision of care and treatment. In less serious cases of alcohol addiction, it is argued that pressure into treatment is justified not only to prevent harms to health, but also in order to prevent a possible future loss of autonomy. In the case of severely deprived and long-term addicted persons, a coerced treatment aimed at the promotion of the well-being of the person may seem more appropriate than an approach that primarily respects the individual's autonomy.

A sound analysis should make a distinction between different cases of alcohol addiction. Firstly, severe cases which generally will involve not only problems with drinking alcohol, but also other mental and physical illnesses and disorders (comorbidity). In these cases defects of decision-making capacity may be involved [35–37], and coercive treatment may be indicated in order both to improve the health and quality of life of the alcoholic and to help him or her to gradually regain some control over his or her life and autonomy. In this case, one can argue that although the intervention is paternalistic, it is a justified form of weak paternalism. Weak paternalism (as distinguished from strong paternalism) occurs when a person whose decision-making capacity is impaired (at least with respect to alcohol) is forced to undergo treatment in his best interest. Insofar a biomedical approach implies that there is more room for coercion in these particular cases, then there is no morally convincing reason to oppose the use of coercion.

Secondly, there are cases of alcoholism and alcohol abuse in which the decision-making capacity with respect to alcohol will generally not be impaired. Forcing the alcoholic to be treated might in that case constitute a form of strong paternalism. According to strong paternalism, the state is justified in protecting a person, against his will, from the harmful consequences even of his fully voluntary choices and undertakings [38]. In liberal societies, it is harder to justify strong versions of paternalism than weak versions. If a biomedical approach would imply forms of strong paternalism, this would be ethically problematic.



## Conclusion

The shifting conceptualization of alcoholism in terms of a chronic brain disease with a genetic component is sometimes characterized as a symptom of biomedicalization in the evaluative and negative sense of this concept. After having scrutinized three of the main concerns, we conclude that these concerns are neither specific to the biomedical model nor immediately convincing. Firstly, it is not self-evident that the social context of alcoholism will be completely ignored as long as the brain disease view on alcoholism is embedded in an integrated biopsychosocial approach. The challenge is to develop a rich biopsychosocial model that does justice to the complexities of this approach, thereby preventing biological (or genetic) reductionism “in disguise.” Secondly, it remains to be seen whether stigmatization and discrimination will necessarily increase, though it may be that their basis and character change as a result of new scientific insights. Thirdly, even though the use of pressure towards or coerced treatment of alcoholics may be facilitated by a brain disease model, in some of the severe cases of alcoholism this may be in the best interest of the alcoholic and ought not to be evaluated negatively.

There is good reason to suspect that a shift in the prevailing view of alcoholism will have some positive implications for alcoholics, both with respect to better prevention and treatment and to how alcoholics are generally viewed. We conclude that the focus in the scientific and public debate should not be on some massive “biomedicalization objection” but on the various concerns underlying what is framed in terms of the biomedicalization of alcoholism. We agree with Nikolas Rose that “the term medicalization might be the starting point of an analysis, a sign of the need for an analysis, but it should not be the conclusion of an analysis” [39, p. 702].

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