Reframing addictions: policies, processes and pressures

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CHAPTER 1. ALICE RAP Essays in Addiction Governance

Peter Anderson, Gerard Bühringer & Joan Colom.

ALICE RAP (Addictions and Lifestyles in Contemporary Europe - Reframing Addictions Project) is a five year €10 million endeavour, co-financed by the FP7 research programme of the European Commission to study the place of addictions in contemporary European society. ALICE RAP is unique in that it brings together some 120 researchers and 71 research institutions from 25 European countries spanning disciplines across the humanities and social sciences and the biological and medical sciences, with expertise in addiction studies, anthropology, cognitive science, criminology, demography, economics, education, engineering, epidemiology, evolutionary biology, foresight management, history, journalism, law, mathematics, media, neurobiology, political science, psychiatry, psychology, psychotherapy, public health, public management, social marketing, social policy, social psychology, sociology, technology, and toxicology. ALICE RAP will complete its work by April 2016. The background to the project and its achievements to date can be found on www.alicerap.eu.

In this ebook, we bring together ten essays on the policies, processes and pressures around the governance of addictions in Europe. The essays do not cover everything there is to say about addictions governance, but they are thought-provoking reflections that have arisen either directly from the work of ALICE RAP, or from the discussions and ideas generated by the ALICE RAP scientists.

In the first essay, Tamyko Ysa and colleagues discuss what governance is. They suggest that governance can be understood as an interactive phenomenon in which public, private and non-profit actors interact to establish and implement public policies. They correctly point out, though, that we do not really know if collaborative governance is the appropriate way to tackle the wicked problems of alcohol and tobacco. Inevitably, conflicts arise between companies' final aim of profit maximization and that of those governments and civil society actors who aim to enhance societal well-being. And, we know who tends to win in these conflicts - companies. It can be even more complicated when governments or other public agencies operate as market players themselves, as with gambling, and, at the same time, act as their own regulatory agency.

In the second essay, Franz Trautmann and colleagues continue the discussion of governance. They highlight the constraints that national governments have in deciding their own addictions policies. Constraints result from the strength of international agreements, with the Drug Conventions being by far the strongest in the field of psychoactive substances; the strength of organised interest groups with the producer industries in alcohol and tobacco playing the largest roles; and, the strength of organized crime. These constraints could be countered by pressure groups, including civil society organizations, were they able to combine effectively, and by public-health based scientific evidence, were it to be consistent. Unfortunately, with few exceptions, such effective combination and consistently in the field of addictions is lacking.

In the third essay, Svanaug Fjær and colleagues remind us that the ideal of good governance entails the four values of efficiency, accountability, openness and inclusiveness. They note that whilst European institutional structures open up the possibilities of alternative

processes in policy making and governance, there remain democratic deficits, in particular, lack of accountability and lack of visibility in the outcome of policy making. They return to the points mentioned in the previous two essays as to whether the present approach of European policy is actually relevant to policies for addiction and public health.

In the fourth essay, David Miller and Claire Harkins describe how the private sector captures governance. They note that that corporate strategies routinely involve the use of both direct and indirect influence: direct influence are those strategies targeted at decision and policy makers; indirect influence are those strategies where the corporation works to influence a third party, such as consumers, decision makers, regulators or competitors, with the aim of capitalising on this to influence policy. Miller and Harkins go on to point out that partnership governance, in which corporations are invited in to the state to make policy, obviating the need to lobby for it, is the ultimate form of capture - not just of policy but of the policy making mechanism itself.

In the fifth essay, Robin Room and Jenny Cisneros Örnberg take a international political stance and conclude that we seem to be at a historic moment when the division between two kinds of substances and control regimes is breaking down. In this circumstance, they note that there is an urgent need to move beyond a dichotomy between what is to be prohibited and what is to be made available for exploitation, promotion and sale with no substantial restrictions. A way needs to be found to move the governance of addictions to a middle way of limited and regulated markets, with commitments to individual choice and to free markets mitigated by strong attention to public health.

The sixth essay takes a more specific context, with Sarah Forberger and Gerhard Bühringer considering to what extent governments should regulate gambling. Building on the arguments made by John Stuart Mill in 'On Liberty' they conclude that governments should intervene in gambling markets to avoid harm to others, to prevent risks to 'incapable people' and to prevent failed markets. More generally, state intervention should avoid human suffering and balance commercial interests. As former American President, FD Roosevelt, once said: "The success or failure of any government in the final analysis must be measured by the well-being of its citizens. Nothing can be more important to a state than its public health; the state's paramount concern should be the health of its people"[1].

In the seventh essay, Marina Tzvetkova and colleagues describe the illicit drug business through the eyes of individual dealers. Similarities with the licit businesses are obvious: entry into the business is motivated by economic interests and facilitated by families; selling is the main occupation; quality, reliability and reputation are important factors for business success; relationships with customers are crucial in terms of providing a good service, but also preventing the customers turning on the business; and, accounting of profits and losses is opaque.

In the eighth essay, David Nutt and Les King remind us of one of the many negative consequences of irrational drug laws - how current approaches of international drug conventions and domestic legislation result in a failure to explore the potential of a range of illegal drugs as tools to progress brain research and to develop new treatments for brain disorders. These perverse consequences could, as Nutt and King point out, be easily solved through a range of simple solutions.

[1] Public Papers of the Presidents of the United States: F.D. Roosevelt, 1937

In the ninth essay, Jürgen Rehm and colleagues lay the ground for a more human understanding of addictions. They remind us that the use of and the harm done by addictive substances and behaviours exist within continua. There is no dichotomy or all-or-none phenomenon between being not addicted and being addicted. This is a simple consequence of biology, which is of a continuous nature. Continua apply to other substances, such as salt or sugar intake, and to other conditions such as blood cholesterol level or blood pressure. The important conclusion that Rehm and colleagues draw out is that heavy use over time is all that you need to describe addiction. Since the diagnostic criteria of dependence are linearly related to the doses of the substances taken, and since all the consequences of dependence are due to heavy use over time, any descriptor other than heavy use over time is redundant – so, why not just stick to heavy use over time. It is easier to understand, it avoids labelling individuals, it is more respectful, and it is less stigmatizing.

In the final essay, the tenth, Jan Erik Karlsen describes how a number of ALICE RAP scientists saw the future of addictions governance. He describes how this was viewed on two axes: should addictions be seen within a criminal frame or within a health and well-being frame; and should our approach to addictions be one of repression or one of compassion?

Standing back, this collection of ten essays boils down to one simple question: do we want our governance systems to be based on short-term economic and political gain for the elite; or do we want them to be based on long-term sustainability for health and well-being for all? This is a pertinent and genuine question[2] - its answer could change everything[3].

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[2] Gornall, J. Europe Under the Influence. *BMJ* 2014;348:g1166 doi: 10.1136/bmj.g1166
[3] Klein, N. This Changes Everything. London, Penguin Books, 2014.

CHAPTER 2. WHAT IS GOVERNANCE

Tamyko Ysa, Adrià Albareda & Sarah Forberger

Summary

Governance has become a popular and widely used concept amongst scholars and practitioners from different disciplines, such as public administration, economy, political sciences, management, law, and sociology. The concept alone is quite ubiquitous and has been embedded in almost every international organization and democratic government to refer to the way in which interdependent and highly complex issues are managed. Governance implies different things depending on who is using the concept and under which context. Taking this into account, the intention of this chapter is to present and discuss a specific concept of governance and its application in the field of addictions, devoting special attention to its implications for final policies.

The chapter is based on a large comparative research conducted by Ysa et al. (2014) which analyzes the governance structures and processes in the field of addiction. By looking at how addictions are governed in 28 European countries, the study presents four different typologies of governance of addictions in the Europe.

What is governance: An introduction

Since the 1980s, and in parallel with the public sector reforms (Bevir, 2009), *governance* has become a key concept across social sciences. A huge amount of articles, books, monographs and issues have been published referring to this concept (Benz, 2010; Bevir, 2009, 2011; Hale & Held, 2011; Levi-Faur, 2012; Pierre, 2000; Schuppert, 2005). However the concept of governance is still very ambiguous and varies depending on the discipline, the approach, and the area taken into account.

It could be argued that governance is not a new concept, it being as old as human civilization[4]. The roots of governance can be found in the Greek word *kybernan*, which means to steer or to pilot a ship, but the concept was also used during the Roman Empire under the Latin word *gubernare*, meaning to direct, rule and guide. Obviously, its meaning has changed throughout the centuries and, nowadays, governance can be broadly understood as the interaction between governments, business stakeholders and non-profit organizations by which and policy decisions implementation are undertaken.

If we narrow this definition down, we first have to state that governments are not the only actors in this process, and, in some instances, not even the most relevant or powerful ones. Governments are one actor in the interplay of actors. Thus, governance includes the role of sub-national and trans-national authorities as well as private organizations (business and non-profit organizations). In this sense, governance appears in the context of the discussion

[4]There is a lively discussion about the "linage" of governance, which depends on how governance is defined and circumscribed. According to Pierson and Benz, governance is related to the modern state (Benz, 2001; Pierson, 1996) whilst others,. e.g. Risse and Leibfried, argue that governance is older than the European national sates (Risse and Leibfried, 2001).

about the role of the State, which can no longer be regarded the center of power and authority given that it shares the decision and implementation processes with other actors.

The main reason why the state has to rely on other actors and share its power is the growing complexity of our current societies and the emergence of '*wicked problems*' (Rittel and Webber, 1973). These kinds of problems are inherently resistant to a clear and agreed solution. Following Roberts (2000), these problems engender a high level of conflict among stakeholders, where there is neither an agreement about the problem itself nor its solution. Hence, more complex and sophisticated policies are necessary, in which public agencies engage with private sector entities and citizens in the decision-making and implementation process. *Wicked problems* require the establishment of collaborative processes between public agencies and other public, civil, society and business organizations (Mendoza and Vernis, 2008: 392). As Lozano et al. (2006: 392) note, "the governance of our complex and interdependent societies will not be possible unless we turn the sense of responsibility among their many social actors into one of co-responsibility".

Taking all this into account, a first characteristic of governance is the shift of power upwards, downwards and sideways. Because of globalization and the internationalization of problems, nation-states have transferred some of their competencies to supra-national authorities, such as the European Union. At the same time, sub-national governments, as well as private and non-profit organizations, have been empowered due to this new form of governing. While some authors see this process as a distribution of power (Levi-Faur, 2011), others see it as the failure of our current States. In this sense, as noted by Rhodes (2007: 6) "the growth of governance reduced the ability of the core executive to act effectively", which is related to the same author's thesis of the hollowing out of the state.

Besides this shift of power, governance has different dimensions that must be born in mind. As presented by Levi-Faur (2011), governance can adopt the following forms: governance as a *structure* referring to the formal and informal set of institutions involved; governance as a *process* referring to the dynamics and leading functions that take place in the process of policy making; governance as a *mechanism* referring to the institutional procedures of decision-making, as well as compliance and control; and governance as a *strategy* referring to the manipulation of the institutional and mechanical design with the aim of influencing choices and preferences.

Because of the ambiguity of the concept of governance and the different perspectives that it can be used to refer to, it is hard to find an overarching definition (Grande, 2012). The meaning of *governance* still varies depending on the approach, research field, discipline, and the theoretical context (Bevir, 2009). There are also critical voices claiming that governance still seems to be an "empty signifier" (Offe, 2008). However, following Grande (2012), there are five key elements which can be identified in governance concepts: (1) new non-hierarchical structure and mechanisms; (2) governing and the criticism of hierarchy as steering principle; (3) emergence of new actors, either private or non-profit; (4) increasing complexity of political actions, and (5) increasing cooperation and collaboration among stakeholders.

Concepts of governance

Despite the many typologies and perspectives under which governance can be studied an analyzed, we focus on collaborative governance as an appropriate holistic approach to analyze the policy structures and processes in the addiction field. Collaborative governance incorporates parts of the network and multi-level governance and allows the incorporation

of various actors from different fields, such as states, non-governmental groups, social actors, lobby groups, and companies.

First of all, it is worth noting that, as a wicked problem, addiction implies complex interdependencies, involving multi-level and multi-sector actors and various interests that impede decision-makers in reaching an easy and consensual solution to the problem. Thus, the governance of addiction challenges the problem-solving capacity of single states (Bingham, 2010). Hierarchically ordered states often fail in finding feasible solutions for wicked problems, which cannot be "solved or solved easily by one entity acting alone" (Bingham 2010: 386). The complex interdependencies arising from wicked problems like addiction cannot be tackled by traditional approaches, as there is no clear problem definition encompassing every area and stakeholder.

According to Roberts (2000) there are three strategies to solve wicked problems: (1) authoritative, (2) competitive and (3) collaborative. Authoritative strategies limit the problem solving capacity to being held by a reduced number of persons. This reduces the complexity of the problem because views of different stakeholders are already reduced at the beginning of the process. However, in interdependent, democratic societies, it would be difficult to legitimize this kind of power concentration in a small group of people, even if they were able to solve the problem. Wicked problems can also be solved by competitive strategies. That means that one competitor has the power to define the problem and to present the solution. The underlying idea is to keep the power circulating among the competitors and to prevent an institutionalization of power. However the danger of creating a deadlock is enormous: Having the power to block a solution but not enough power to enforce one's own solution creates a situation of standstill where no real problem solving is possible.

The last possible strategy Roberts (2000) suggests to solve complex problems is collaboration. The aim is to engage all stakeholders in order to find the best possible solution for all. It is assumed that an actor can accomplish much more by joining forces than independently. Hence, as noted by Roberts (2000: 6), "at the core of the collaboration is a 'win-win' view of problem solving". This approach involves meetings, alliances, partnerships, joint-ventures and all variations of collaborative work. The main principle is the discussion of possible solutions in order to find and agree on a common approach.

Following this last approach and according to Emerson et al. (2011), collaborative governance can be understood as "the processes and structures of public policy making and management that engage people constructively across the boundaries of public agencies, levels of government, and/or the public, private and civic spheres in order to carry out a public purpose that could not otherwise be accomplished" (Emerson et al., 2011: 2). Thus, this is conceptually broader than the idea of governance through networks, since it takes into account both formal and informal interactions of a multiplicity of actors. The concept includes members from the public spheres, private sector, civil society, local residents, active local groups, and the community; but it also embeds new forms such as joined up government, hybrid arrangements or community-based forms of governance. In sum, collaborative governance is an interactive process with a huge number of actors, each with various interests, perspectives, and positions, brought together for a discussion "during which policies are developed" (Bevir 2009: 47).

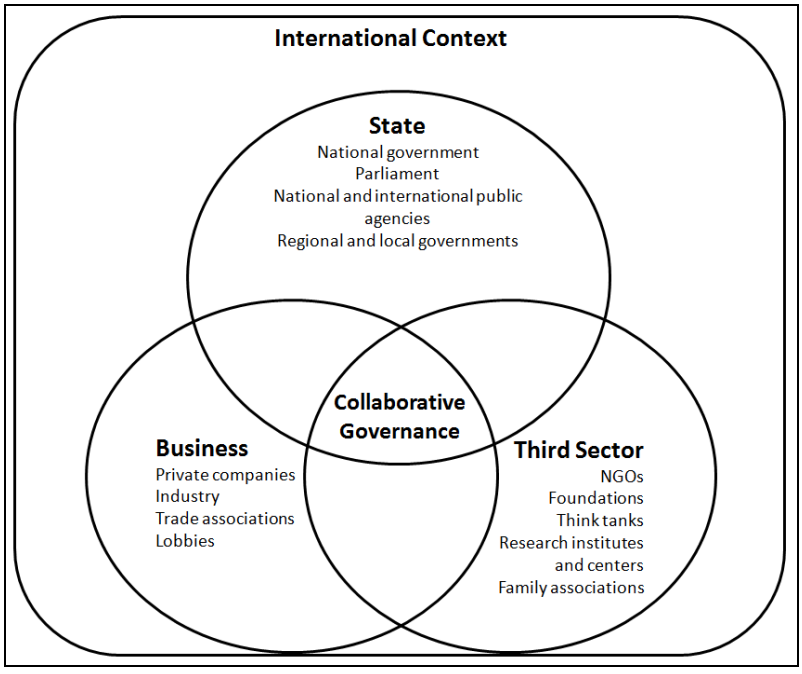
The underlying idea is that involving an increased number of actors helps to overcome large institutionalized interests represented by the state-level establishment actors and insider

interest and lobby groups. An integration of multi-actors at an early stage of the policy-making process could foster the support and legitimacy of those decisions derived from the process. The involvement of stakeholders is also supposed to reduce the chances of underrepresentation of a particular group or issue and to empower citizens. These civil society stakeholders have an impact on (normative) legitimization of the decision and on the implementation time, speed and application of a given policy decision. Also, because of the actors involved, it is argued that there is less chance that one aspect could not be represented and would be overlooked. It increases transparency, accountability, and trust because of a more open policy-making process.

In summary, governance can be understood as an interactive phenomenon in which public, private and non-profit actors interact to establish and implement public policies. Some key determinants of this form of governing are the emergence and empowerment of different actors, either public or private, with whom the state has to deal, and the loss of hierarchical forms of governance in favor of a relatively more equal power distribution (Van den Berg 2012).

The following figure (Fig. 1) attempts to schematically summarize our understanding of collaborative governance. Collaborative governance arises from the interaction between the three spheres representing the government, non-profit organizations, and private companies, but also taking into account how the international context influences each sphere. In our present interdependent world, the role of international organizations, as well as ad hoc relations between states, cannot be missed since its influence on national policies can be a determinant. As a result, we deal with policies that have been "co-produced by a wide range of actors at state level (e.g. ministries, parliaments, agencies, authorities, and commissions), society (e.g. businesses, citizens, community groups, global media including networked social media, foundations) and at supranational level (e.g. the European Union, the United Nations)" (WHO, 2011).

Figure 1. Collaborative Governance



Source: Own elaboration

Governance of addictions

As mentioned above, addiction is a recognized as wicked problem that does not follow the traditional linear model of problem-solving: problem-options-solution-implementation. In this vein, the governance of addictions is influenced by various factors that intervene in the policy-making process due to its implications on society and the controversy that it generates. Policy-making, as well as implementation processes, are influenced by public, private, and non-profit stakeholders coming from a range of different fields, such as: health, justice, public order, safety, economy and trade. The wide range of stakeholders and their interdependencies, as well as interdependencies between the EU and EU member states, make the governance of addictions highly complex. Therefore, since addiction is a wicked problem, inherently resistant to clear and agreed solutions, it would seem appropriate to use collaborative governance as the best way to cope with the multiple dimensions of the problem.

Governance of addictions: European Union level

As a wicked problem, addictions cannot be properly tackled by the state alone. In this respect, the role of the EU in this field has increased throughout the last two decades, to the extent that, nowadays, the EU is a key policy actor determining national agendas in the field of addictions. However, it is worth remembering that, as a health policy, addiction issues are under the exclusive competence of the EU member states. More specifically, the article 168 of the Treaty on the Functioning of the EU (TFEU) states that "the EU shall complement the Member States' action in reducing drugs-related health damage, including information and prevention". This same article notes that "Member States shall, in liaison with the Commission, coordinate among themselves their policies and programs. The Commission may, in close contact with the Member States, take any useful initiative to promote such coordination, in particular initiatives aiming at the establishment of guidelines and indicators, the organization of exchange of best practice, and the preparation of the necessary elements for periodic monitoring and evaluation." (EU 2008: 122). Therefore, the EU still has limited power to directly influence member states' policies on drugs and addictions. However, the recommendations of the EU jointly with a set of directives and regulations related to alcohol and tobacco are shaping most of the EU national approaches on how to govern addictions.

Collaborative decision-making at the EU level is done through participatory platforms, multi-stakeholders forums and public consultations aimed at receiving inputs, comments, amendments and observations from any relevant stakeholder in the field of addictions and drugs. Clear examples of this process are the European Civil Society Forum on Drugs and the Alcohol and Health Forum, where every stakeholder affected is invited to participate and make their voice and interests more visible to public institutions, hence, embedding the essence of collaborative governance.

Despite the existence of these forums, both third sector and private companies aim to influence EU decision-making process even more directly, in a similar way as is done in member states. The general trend across the third sector is to produce evidence-based analyses in order to influence the EU policy one way or the other. It is worth mentioning that the EU itself is promoting evidence-based policies through the funding of research projects studying addictions and drugs and the translation of evidence into policy (e.g. ALICE-RAP, AMPHORA, ODHIN, etc.). On the other hand, business lobby pressures are not as transparent and sometimes are linked to political scandals, such as the dismissal of the EU Health Commissioner in recent years due to reported links with the tobacco industry, at

precisely at the point when tobacco regulation directives were about to be revised[5]. However, we also can find examples of transparent lobbying, such as the lobbying of the EU by a number of different tobacco companies in order to approve cooperation agreements aimed at reducing cigarettes smuggling.

Regardless the EU limitations, its growing relevance obliges us to pay careful attention to European level governance. From 1990 to 2013 the EU has passed seven action plans, three strategies and various regulations and directives for alcohol and tobacco. All these clearly indicate that the EU is becoming more willing and capable of influencing and determining its member states' policies in the field of addictions. If we take the EU as a model, in the years to come we should expect that member states will become much more inclusive, embracing a broader understanding of governance, more participative and horizontal.

Governance of addictions: EU member states' structures and processes

Most EU member states' governments tend to exchange views and plans with relevant stakeholders in order to obtain inputs and, later on, amend laws, regulations, plans and strategy proposals. Overall, the way governments and relevant stakeholders deal with addictions is not significantly different across EU member states. Whereas some differences may arise between member states, mainly due to their historical, cultural and political background, we can identify a cross-country model embedding the following characteristics:

a) Decision-making processes are led by the governments with private and non-profit stakeholders taking an active role acting as interest and lobby groups.
b) Implementation is steered by government with the active involvement of non-profit organizations.
c) Accountability and evaluation of policies are conducted by the governments with few inputs from non-profit organizations.

Despite these broad similarities, we can still note different approaches in how EU member states cope with addictions. The extent to which EU governments decentralize policy-making and implementation processes, as well as the involvement of stakeholders, either private or non-profit, has been further studied by Ysa et al. (2014), and proved to be one of the determinants for establishing different EU models of governance of addictions.

Through an in-depth study of how 28 European countries[6] establish their structure and strategy to tackle addictions, Ysa et al. (2014) differentiate four groups depending on whether they are more oriented towards health or criminalization policies and whether their strategies are more inclusive or centralized and hierarchically-based. One of the main conclusions of this study is that those countries that embrace a more inclusive governance approach and involve different levels of government as well as private and non-profit organizations in the policy-making and implementation processes tend to have health-oriented policies aimed at enhancing societal well-being. Thus, those countries that embrace a collaborative governance of addictions and tackle the issue as a cross-cutting problem involving different ministries and levels of government as well as relevant non-governmental organizations, especially during the implementation process, normally present a strategy oriented towards well-being. Some examples of this well-being oriented strategy associated to a collaborative governance approach can be seen in Germany, The Netherlands, Portugal

[5] Revision of the Tobacco Products Directive (2014/40/EU): http://ec.europa.eu/health/tobacco/products/revision/index_en.htm
[6] The countries taken into account are the 27 EU member states in 2012 plus Norway.

and Spain. In all these cases, the Ministry of Health is in charge of coordinating addiction policies. Decriminalization and harm reduction are the pillars of the policy, and health for society in general has a higher standing than security-related problems arising from addictions and drugs.

Discussion

Although the EU is using collaborative governance to cope with drugs and addiction issues, further research needs to be undertaken in order to see whether collaborative governance is an appropriate way to tackle these problems. Some conflicts may arise when seeking collaborative arrangements that involve governments, private companies and non-profit organizations. This is especially true when contrasting companies' final aim – profit maximization – with those that governments and many non-profit organizations pursue –the enhancement of societal well-being.

Nonetheless, addiction is clearly a wicked issue that will not be solved if we are not able to find feasible settings in which different stakeholders collaborate in order to seek solutions and promote societal well-being. The greatest advantage of collaborative governance – the involvement of diverse and various actors – could also be its greatest disadvantage. It has not yet been proven that collaborative governance is more effective than top-down approaches. This has to be monitored further. Moreover, following the rational approach, more actors means an increase in the transaction costs involved. Many more interests have to balanced out which often proves excessively costly and sometimes impossible (Brevir 2009: 48). One further criticism is that policy solutions represent only the interest of the few groups who have been involved in the policy-making process. Some interests are too diffuse to be organized and voiced. It has been argued that the policy-making process favours better financed and organized groups and excludes and marginalizes weaker social actors (Bevir2009: 48). In line with this, collaborative governance favours the involvement of special interest groups rather fostering a common sense of public goods. However, further research will indicate whether collaborative governance is the right mode of governance for addiction due to its openness and the possibility of involving different actors at different levels. Collaborative governance presents the opportunity to encourage democratic participation while pursuing societal well-being. Throughout this process, the EU has an opportunity to lead, establish the path, and determine the objectives that every member state should bear in mind in order to promote societal well-being.

Take Home Messages

The concept of governance is still ambiguous and varies depending on the discipline, the approach, and the area taken into account.

Governance refers to the role of national, sub-national (regional and local) and trans-national authorities, as well as companies and non-profit organizations that come together to tackle wicked issues in the policy making and implementation process.

The EU has become an important trans-national actor, promoting policies based on governance mechanisms across member states.

As a wicked problem, addictions are increasingly tackled from the perspective of governance, to bring solutions from within and from outside governments, either at the EU or member state level.

Countries that adopt a collaborative governance perspective tend to deal with addictions policy through a health-oriented and well-being strategy.

Conflict of Interest Statement

The authors of this chapter have no conflict of interests to declare.

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CHAPTER 3. THE EMERGENCE AND INFLUENCE OF THE CONCEPT OF GOVERNANCE IN THE EUROPEAN ADDICTION FIELD

Susanne MacGregor, Nicola Singleton & Franz Trautmann

Summary

The concept of governance has become more prominent in recent years. It has extended analysis of the exercise of power and authority beyond formal state government to a myriad of non-state actors. The context is one of more complex societies and porous boundaries. Understandings of the term vary across countries, languages and disciplines. This chapter focuses on issues related to European addiction policies and draws on the literature of policy studies. Even here there are multiple meanings with key terms including multi-level governance, global governance, networks, stakeholders, epistemic communities, deliberative governance, adaptive governance, advocacy coalitions and collaborative governance. An implicit interest in much discussion is the aim to promote 'good governance'. The chapter illustrates the potential of the governance framework in analysing addiction policies comparatively.

Introduction

The term 'governance' is an evolving concept for which there is not one generally agreed definition. The Oxford English Dictionary sees it as 'the action or manner of governing a state, organisation, etc'[7] and in the past it was often viewed as synonymous with 'government'. However, attention to the concept of governance has grown in recent years and now encompasses various forms of the exercise of power and authority and a myriad of non-state actors (Weiss, 2000). It also links to new ideas of public or social administration (the new public sector management). The context is a move to neo-liberal globalised economies, individualised cultures and pluralistic politics and changes from welfare state regimes to new principles of social policy. Recently, Kjaer has identified governance as 'broadly referring to the setting and management of political rules of the game, and more substantially with a search for control, steering and accountability' (2012: 11).

From a focus on international development and international relations (Weiss, 2000) the term is now applied in a variety of contexts, including business, the charitable sector, schools and government: those involved in the treatment of addiction will be familiar with the concept of clinical governance (Scally and Donaldson, 1998). Governance occurs at many levels, local, national and international. A key understanding from the policy studies field is that 'there is not one but many centres linking many levels of government' (Rhodes1997: 1). Observers note the dispersal of power to quasi and non-governmental actors, blurring the boundaries between formal and informal sources of authority. The conclusion of these studies is often that the policy process is 'messy'.

[7] Oxford English Dictionary online http://oxforddictionaries.com/definition/english/governance [accessed 15/08/13]

Understandings of the term and the degree of explicit focus on governance issues vary between countries. Indeed, as became evident early on in the ALICE RAP research project, in some languages there appears to be no appropriate word for the concept (Trautmann and Croes, forthcoming 2014). There are also differences in usage within the social sciences. Here we focus on definitions which have developed within political science, leaving aside the sociological concept of 'governmentality' (Rose et al 2006).

The evolution of concepts of governance and 'good governance'

An interest in policy governance is usually driven by a desire to ensure that the outcomes of such processes are policies that promote the public good (Babor et al 2010a; 2010b). From this emerges the concept of 'good governance', which leads to consideration of the quality of governance processes and the need for benchmarks against which they may be judged.

Whatever definition of governance is used, the key focus is on how decisions are made and who is involved. The idea of 'good governance' is at the core of many discussions, involving a sense of responsibility, ethical behaviour, integrity, trust, management skills and proper scrutiny. The opposite is corrupt governance and low accountability. Arguments focus on how to ensure more transparency, inclusivity and accountability and thus produce better decisions and institutions.

Much of the early interest in governance arose from concerns of the World Bank and the United Nations to support good management of international development assistance. The focus was on state institutions and processes and promoting efficiency, accountability and legitimacy.

A conceptualisation of governance of relevance in such contexts is 'multi-level governance', which concerns the management of: multiple and shifting levels of government responsibility for policy; multiple institutions of government at the same level often pursuing somewhat different policies; but has also evolved to incorporate the blurring of the distinction between formal governmental power and non-governmental influence in policy (Cairney et al 2012: 217). This concept is particularly important In the European context because of the presence of European Union institutions.

A related concept is that of 'global governance'. This concept refers to the ability of international organisations, backed often by certain countries[8], to influence the policy behaviour of sovereign states. Global governance includes rules, norms, and principles used to regulate global tobacco, alcohol or illicit drug supply and demand and attempts to discourage the extension of harms related to the consumption of tobacco, alcohol, or drugs to low- and medium-income countries. Global governance occurs through a loosely tied network of multiple actors, states, functional agencies, and non-state actors who interact frequently. In the addictions field, these are visible at meetings of WHO and its expert groups, UNODC, INCB, CND, UNAIDS, UNGA, World Health Assembly and other institutions. The European Union and European networks have played distinctive roles at these levels (Bewley-Taylor 2012).

The earlier models of governance, which had a main focus on formal structures and institutions, tended to highlight principles and processes to aid good policymaking. For

[8] In the case of illicit drugs policy it has often been observed that international policy reflects the interests of the USA (Buxton 2006).

example UNESCAP[9] identifies the characteristics of good governance as: participation, consensus-orientation, accountability, transparency, responsiveness, effectiveness and efficiency, equity and inclusiveness, and following the rule of law.

Such high level principles can be operationalized into structures and processes that underpin good governance, such as goal setting or leadership (Independent Commission on Good Governance in Public Services, 2004; Laughrin, 2011) and can be used to assess the quality of governance. In European governance, there has been increased attention to the notion of benchmarking operating through the open method of coordination (CEC 2001**;** Büchs 2007).

However, other perspectives on governance have emerged in response to wider changes in the context in which governance operates. A key assumption of recent discussions is that the boundaries of the nation state are more permeable in a globalised world. This brings a wider group of non-state actors into play and reduces the level of state control over policy processes. It also brings into sharper focus the issue of voice, who can 'shout loudest' or has privileged access among the many players, multiple agencies and sites. Global online campaigning and activist organisations can take action themselves or bring pressure to bear on governments and businesses. Public health campaigners have mobilised into highly effective networks of influence, most evident with regard to tobacco. Similar groups are seen in the alcohol field (eg AMPHORA the Alcohol Public Health Research Alliance[10]) and regarding illicit drugs (eg Harm Reduction International[11]). At the same time, the influence on policy of producers and suppliers, such as multi-national tobacco and drinks companies, is an issue of longstanding concern. Trade organisations openly lobbying for their interests are emerging even in the margins of the illicit drugs field where prohibition is replaced by condoning policies. The unions of coffee shop owners emerging in the Netherlands are a well-known example (Trautmann and Croes, forthcoming 2014), while other emerging groups are head shop owners and cannabis pharmacies.

However, the extent of the influence of these wider groups is called into question by theories which emphasise the continuing role of structures and elites (Bachrach and Baratz (1962). At the same time, in the addictions field, these 'stakeholders', 'epistemic communities', 'networks' and 'advocacy coalitions' usually divide into defenders of the status quo versus proponents of change of one form or another (Heclo 1978; Haas 1992; Kingdon 1995; Sabatier 1999). This raises the question of whether issues which were once quietly managed by a small group of insiders have over time become controversial and politicised.

Here a relevant concept is that of 'collaborative governance' - "the processes and structures of public policy decision making and management that engage people constructively across the boundaries of public agencies, levels of government, and/or the public, private and civic spheres in order to carry out a public purpose that could not otherwise be accomplished" *(*Emerson et al 2012: 2). Emerson and colleagues propose an integrative framework for collaborative governance and highlight factors that affect collaborative governance processes, such as leadership, shared beliefs, knowledge and resources, and stress the dynamic and iterative nature of the different components and the causal relationships between the different elements (Emerson et al 2012: 6-7).

[9] http://www.unescap.org/pdd/prs/projectactivities/ongoing/gg/governance.pdf [accessed 03/10/13]
[10] http://www.amphoraproject.net/view.php?id_cont=43&PHPSESSID=85pbf6e229gfik7f2rgd82gup4
[11] http://www.ihra.net/

Other relevant perspectives on governance have emerged focusing on how the engagement of the full range of actors, both governmental and non-governmental, is managed in a policy field: these include 'network governance' and 'deliberative governance'. Network governance focuses on the interactions between the different actors in the policy field: this is a 'bottom-up' approach where policy emerges through bargaining (Rhodes, 2007). Deliberative governance focuses on how actors are engaged in the process: a central idea is the need for 'spaces' in which the different actors concerned with a policy area can come together and deliberate on the issue (Hendriks, 2009). These approaches highlight the potential of enhanced legitimacy and access to knowledge and resources through such mechanisms, but they also may be affected by power differentials and open to manipulation. These ideas have considerable relevance for addictions policy which may be hotly contested and beset by extreme power differentials between stakeholders. In the 'real world' not all stakeholders are invited to take part in processes and critics of the dominant paradigm may need to organise to claim a place at the table as will be illustrated below.

Although across a range of psychoactive substances, there may have been a move from a closed policy community towards an issue network, the outcomes in terms of policy have not been the same. There has been a move to convergence in tobacco policy with increased regulation of tobacco. An analysis of the developments of the drugs problem and drug policy in the period between 1998 and 2007 showed a worldwide trend towards convergence of drug policies, resulting in a surprising amount of agreement on the aims of drug policy and the measures to realise these. The international governance platforms of, among others, UNODC and EU form an important top-down force pushing national policies toward harmonisation (Reuter and Trautmann 2009). However, policy changes start from different positions in different countries and EMCDDA still note major differences in implementation and provision of services (EMCDDA 2008).

Another key issue within policy networks is the flow of information and how this is managed. In an era of globalisation, new and faster information flows, facilitated by the internet and mobile technologies, having the potential to bring in a greater range of stakeholders and knowledge forms, may necessitate a complete rethink of traditional linear, compartmentalised conceptualisations of the policy process and a shift to more reflexive, dynamic models (Crozier 2010). Handling the range of information sources and mediating between alternative sources of evidence is a major challenge for governance. The question of the relation between science and policy, long of interest in the addictions field, remains central. Public health approaches stress the necessity for good monitoring and surveillance systems to inform policy making. In Europe, these have developed in the widely praised form of EMCDDA with regard to illicit drugs. With respect to alcohol however the situation is less good. It was noted for example at the launch of the 2012 WHO European Region report on alcohol, harm and policy, that data from 2004 was the most recent available (Anderson and Gual 2012). This links also to the question of the specific role of researchers and scientists as policy actors.

Addictions governance in Europe – examples of trends and key issues

In contemporary market economies, some psychoactive substances occupy a peculiar position: they are not treated as ordinary commodities to be regulated in the same way as other traded goods. A key question is why the state is able to assert moral authority over drugs while it has lost it in so many other areas (Sulkunen 2009). In contemporary complex European countries with their diversity of values, how are conflicts around psychoactive substances resolved? Are coalitions and alliances held together by beliefs rather than interests and do the two types of networks collide in the spaces where rules are debated or

is the process unstructured and event-driven? What is the balance of power between different interest groups, such as suppliers of tobacco, alcohol or illicit substances, public health interests and consumers, how does this differ for different substances and how has this changed in the post-war period? Clearly it is not possible in a short essay to describe the full range of issues relating to the diverse approaches to governance relevant to the variety of addictions, so this section will provide a few examples to illustrated key points.

It has been suggested that in the tobacco field, the opposite of the trend towards the involvement of a wider range of stakeholders highlighted above has occurred: 'paradoxically the specific field of tobacco policy has largely been characterised by a reverse trend with increasing state control and a disempowering of consumers who smoke''' (Soebø 2012: 38). However, an alternative view would be that the trend resulted from the emergence of new stakeholder groups, eg the anti-smoking lobby, medical researchers, given greater voice by international bodies and networks. A key influence on national decision-making has come from the international level. The WHO provided a new venue or space for international public health influence. In May 2003, the 192 members of the World Health Assembly, the decision making body of the World Health Organisation, unanimously adopted the Framework Convention on Tobacco Control (FCTC) (WHO, 2003). The WHO (2010) describes this as a 'milestone for the promotion of public health.' One analyst has concluded that 'the promotion of tobacco knowledge is increasingly performed internationally by an "epistemic community", or a network of knowledge-based experts, such as medical practitioners and public health officials providing the scientific basis for tobacco control' (Cairney et al 2012: 35). However, the battle between proponents of state intervention and free marketers has not ceased to rage. For example, 'in 2010 Philip Morris Norway took the Norwegian state to court because the company believed that the regulation is in violation of the free trade principle as defined in the EEA Agreement' (Soebø 2012: 36).

However, in contrast, with respect to cannabis, a tendency towards a softening of prohibition can be detected, with widespread, de facto or in some cases de jure decriminalisation of possession in many countries (Rosmarin & Eastwood, 2012), going as far as legalisation in Uruguay and Colorado and Washington states in the USA. One can speculate on the importance of new stakeholder groupings, consumers, in particular patient groups promoting medical use, and human rights lobbyists, in providing the impetus for this change.

A key issue in the architecture of governance has to do with which government departments provide the location for policy discussions. With regard to tobacco, the tendency over time has been to accord greater power to Health ministries. This has increased access to government for health campaigners and allowed health experts and public health campaigners to play an active role. Scientific evidence of the harms due to tobacco has been accepted, especially because of the recognition of the harms of second hand inhalation of smoke.

By contrast, responsibility for illicit drugs may be located within Justice departments, thus allowing less access for public health voices and more for business interests or those linked to public order such as prisons and police. Where decisions are located at the level of local government or devolved administrations, there appears to be more opportunity for partnerships to develop across such sectors, arguably allowing more space for a range of arguments to be made (Thom and Bayley 2007). The outcome of such involvement is not pre-determined – local concerns focusing on public nuisance may have a variety of policy

outcomes, from increased restrictions on coffee shops in the Netherlands to provision of consumption rooms in Denmark or Heroin Assisted Treatment in Switzerland.

The influence of the levels above the nation state also varies. A key contrast in the addictions field is between alcohol and tobacco, which until fairly recently were national jurisdictions, and illicit drugs which have been subject to international Conventions for a hundred years. The influence of the European Union also varies across substances: 'Tobacco policy is an area where the EU and the WHO have had far greater influence on national regulations as compared to other public health related commodities' (Ørnberg and Sohlberg 2012: 66). From a public health/ infectious diseases point of view, and with regard to the power of multi-nationals and organised crime, psychoactive substance issues cross boundaries and thus demand an international response even if adaptations might take place at national and local level to reflect differences in patterns of use, cultural norms and political values.

An interesting question relates to the role of Commissions or Task Forces as a distinctive mode of governance in contemporary societies. These forms bring together experts and a range of concerned stakeholders. One view is that 'the multi- stakeholder approach has been imported into public administration from the corporate world and the realm of EU cooperation' (Hellman 2012: 160). Regardless of its origin, the 'commission' does seem to play a notable role in exercising scrutiny, gathering evidence, arriving at consensus and formulating recommendations. Commissions may operate at various levels – international, national or local - and may be instigated by governments or non- governmental bodies. What part have they played in the addiction field?

It was a government-appointed expert commission which proposed to decriminalize illicit drugs for personal use and to introduce Portugal's first national drug strategy, which had the explicit goal of providing a more comprehensive and evidence- informed approach to drug use (Comissa˜o para a Estrate´gia Nacional de Combatea` Droga 1998).

In the UK, the Polkinghorne Effectiveness Review was instrumental in establishing the principle that 'treatment works' in the 1990s (MacGregor 2006). The fears that treatment services would be cut and that an American style abstinence agenda would come to dominate were widespread in the drugs treatment field at that time, along with fears that needle and syringe exchanges and other harm reduction services would be banned. A Task Force was established in April 1994 to review the effectiveness of treatment services for drug misusers. It comprised people from a wide range of backgrounds to reflect Ministers' wishes that the review should bring a fresh perspective to the treatment of drug misuse. This was a direct challenge to what was seen pejoratively as the drugs lobby, portrayed as a self-interested professional provider interest. A significant element in the strategy to defend the services was to schedule the Effectiveness Review over a longer time-frame than consultation on the Green Paper and thus decisions about the future of services were kicked into the long grass. Over time politicians and celebrities lost interest. This tactic placed influence firmly back in the hands of civil servants and professionals – that is the relatively small 'epistemic community'. This strategy was largely successful in defending the treatment services, linked to giving high priority to the argument that investment of £1 in treatment would save greater sums relating to criminal activity, indicative of the growing pressure on politicians from local communities to pay attention to the issue of acquisitive crime.

Also, in the UK, Parliamentary Select Committees have in recent years been energised to scrutinise government policy more closely, accumulating evidence from a range of sources

and producing influential reports. These occasions also provide spaces for the involvement of organised networks of belief or interest to engage with the public debate (MacGregor 2012).

European institutions based in Brussels have provided a fertile location within which numerous lobby groups operate: for example, 'the tobacco industry and its allies have also worked to influence the EU from within' (Cairney et al 2012: 87). At the same time however 'the establishment of a new venue for tobacco control policy through the EU has been an advantage for anti-tobacco civil society groups, especially those in member states that lacked the influential connections to government agencies in their own countries that tobacco companies often had' (Cairney et al 2012: 88). The European Commission has also actively developed civil society involvement in deliberations on illicit drugs policy. NGOs have played an increasing role in debate and policy development. A Green Paper of 2006 explicitly recognised their role. In 2007 a selection process for a new civil society forum on drugs began, the aim being that this would serve as a platform for the informal exchange of views and information between the Commission and civil society organisations in the EU candidate countries and elsewhere. NGOs include users' groups, organisations that promote harm reduction or legalisation, human rights groups and NGOs from producer countries or European NGOs that support their interests. There are also active NGOs and networks who are against harm reduction and support the goal of a drug free world. In spite of this, some have seen the development of European debate on drugs policy as the result of deliberate lobbying by pro-harm reduction groups to shape public opinion and decision-making in European institutions (Yans, 2006) and this highlights the challenge of reconciling widely divergent perspectives within policy governance processes.

In discussing forms of governance, the choice is not between institutions *or* networks: institutions and networks have operated together to influence developments. The creation of instruments such as the Pompidou Group and then EMCDDA and its national counterparts to meet information needs helped to create, through for example the REITOX focal points, human networks of drug researchers who developed a common language and perspective and channelled scientific knowledge into the institutional process: this mutual interaction over time produced the distinctive European Union approach to illicit drugs policy seen by some as having harm reduction at its core (Hartnoll 2003; Hedrich et al 2008; MacGregor and Whiting 2010; Bewley-Taylor 2012).

It might be argued that the governance of illicit drug policy differs from that for other substances in being rooted historically in the UN conventions which makes it very state-dominated. As Martin Elvins observed the 'drug threat has provided a basis on which to legitimize a secretive and anti democratic style of policy making over a considerable period of time' (2003: 23). He notes that Europol as well as EMCDDA can be described as knowledge brokers in relation to EC-EU drug policy. He also observed that 'the continued expansion of European integration and the inevitable broadening of the range of issues under consideration placed greater emphasis on the working group level' (2003: 138) - mainly done by civil servants. However, as indicated above there is evidence that over time decision- making on illicit drugs has drawn in a wider range of civil society actors and a wider range of evidence. There has also been a significant growth in international conferences, training courses and informal contacts across public security, criminal justice and health and social affairs.

A fundamental question is how far these various new forms - of commissions, working groups and networks - add up to anything more than 'talking shops'? And related to this

whether decisions made at this level have much impact on activities at national and local levels? Pressures from below often seem to be at odds with the various scientific-technocratic public haalth, or public security, or commercial pressures jostling for pre-eminence at European level.

A similarly sceptical comment about the influence of evidence-based harm reduction arguments in Europe is provided by Tim Boekhout van Solinge who notes that the power of the EU bureaucracy is a key feature, consisting of officials from the member states who belong to the Council's working groups in Brussels, or those who work directly for the EU whether for the Commission or the Council. The EU's committees and working groups have mushroomed. There is however, Boekhout van Solinge comments, a power struggle between the Commission and the Council and the most important decisions are taken at the highest level – that of the Council. Where drugs are concerned, it is the European Council which maps out the political course to be followed. Boekhout van Solinge argues: "One reason for the absence of any debate on drugs policy is the general lack of expertise on the subject. Most of those involved in decision-making know little about drug use and the different patterns of consumption; they are barely acquainted with standard works on drugs, or the literature on the history of drug use and regulatory control. This lack of knowledge makes a discussion of the drugs problem among officials a rather dreamlike or surrealistic affair to anyone who does possess expertise on the subject" (Boekhout van Solinge 2002: 106). However, this is not an exclusive EU phenomenon. Similarly dismal observations are often made by participants in national debates.

Conclusions

The issues raised in this exploratory and discursive overview of the governance of addiction concern the power of the national state to decide its own policy. The answer has to do with the strength of international agreements, with the Drug Conventions being by far the strongest in the field of psychoactive substances. The power of the state is also influenced by the strength of organised interest groups with the producer industries in alcohol and tobacco continuing to play key roles. Their equivalent is not present in the illicit drugs field, although arguably the activities of organised crime are a powerful constraint on government and tackling this issue uses up much effort and resource. Also influential is the extent to which the state has a financial interest for example via taxation and revenue raising.

A related issue is the strength of pressure groups, including NGOs, and the breadth of alliances they form with other groups on the basis of shared beliefs. Their influence is affected by the degree to which they are able to combine effectively. A further influence comes from the strength of scientific evidence regarding harms to the individual or to the rest of society: over time a consensus arose on the harms due to secondary smoke inhalation – similar consensus is not found on the whole with regard to other substances.

Institutions are seen to have a strong influence: EMCDDA, medical colleges, police and civil servants are all relatively powerful. These all interact with politicians, the mass media and public opinion to affect the outcome of deliberations. Finally, policies themselves become political actors – implementation of a policy involves setting up groups which become themselves networks of influence and locations for the growth of expertise – and the experience of effective public policies can change public attitudes over time.

The examples above illustrate the complexities of governance processes and the challenges in seeking to go beyond descriptions of processes and practice to specifying what might be considered characteristics or components of 'good governance'.

An example of one attempt to do this in the addictions field is the work of the UK Drug Policy Commission, which used an expert deliberative process to identify characteristics of good governance for drug policy. This framework combined structures and processes with principles or indicators of quality under eight broad headings: overarching goals; leadership; co-ordination; policy design; development and use of evidence; implementation; accountability and scrutiny; and stakeholder engagement; and then used this in assessing the governance of illicit drug policy making in the UK (UKDPC, 2012).

A key question that arises concerns the relative importance of evidence and values within the policy-making process, including as an influence on goal setting. Related to this is the issue of who is involved in these decisions and the degree to which technocratic approaches to policy processes are present. It appears that devolved or federal administrations may be more successful in encouraging consensual politics and cross-party support for policy goals than centralised ones, although the latter may be able to act more decisively (as the Thatcher Government did in UK in the 1980s in implementing harm reduction approaches to counter the threat of HIV/AIDS).

UKDPC identified characteristics of good governance as involving processes such as goal-setting, leadership and accountability, and scrutiny. One of the major challenges for studies of good governance is however judging what is 'good'. Clearly, to identify good or effective governance, it is necessary to define the outcome that is sought, which is not always straightforward. In the theoretical literature, objectives tend to be identified in very broad terms such as pursuing common goals, or enhancing the public good. In respect of policy governance the aim might be, for example, policy that benefits the maximum number of people, or policy that meets the needs of government, or policy that has had input from all stakeholders, or policy that provides the best value for money. While good governance may in fact contribute to all these things, some trade-off between these different goals may be required.

Duit & Galaz (2008) have developed the concept of 'adaptive governance' and pointed out that the governance systems suited to periods of stability and incremental change may not be flexible enough to cope with unexpected events or periods of dramatic change. Hence consideration of the functioning of governance processes will need to be an on-going process.

In many fields, including that of addictions policy, policy development and implementation is becoming ever more challenging. There is frustration globally with the way illicit drug policy is managed, but as an area it seems resistant to change. This is not the case with tobacco nor possibly with alcohol and a comparison of the three areas can be instructive. This argues for attention to be paid to mechanisms or processes for making and implementing policy that can deliver better outcomes, i.e 'good governance', rather than simply looking at the content of individual and specific policies.

The simple conclusion is that given the different cultural, political, socio-economic and organisational contexts in which policy operates, there is no single, perfect, model of policy governance. What is 'good' will vary over time and place and needs to be assessed accordingly.

However there are grounds for encouraging scientific researchers to collaborate with public health advocates to strengthen policy governance by acting collaboratively, working across sectors, designing metrics to evaluate the impact of policies and assist in promoting healthy

behaviours and lifestyles (Anderson and Gual 2011). 'Governance' may seem a dry topic but without efforts to improve the design and implementation infrastructure, policies will continue to be imbalanced, costly, ineffective and with sometimes harmful unintended consequences.

Take home messages

Attention to the concept of governance has grown exponentially in recent years in response to the increasing complexity of modern society and politics.

The term has multiple meanings all with prescriptive as well as descriptive implications but in general refers to rules, norms and principles and practices through which the policy process is managed. How policy is made and delivered.

The field of European addiction policy is not fixed nor developing in a simple linear direction. There are signs of convergence and divergence with top down and bottom up pressures and multiple policy actors jostling for influence.

The concept of 'good governance' draws attention to goals, leadership, coordination, policy design, use of evidence, accountability, scrutiny and stakeholder engagement.

The European context is a rich laboratory for comparative study across countries and across substances with the benchmarks of 'good governance' providing a valuable analytic framework.

Conflict of Interest Statement

The authors of this chapter have no conflicts of interest to declare.

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CHAPTER 4. BALANCING GOVERNANCE LEVELS IN THE EUROPEAN UNION

Svanaug Fjaer, Joan Colom, Hildegunn Sagvaag, Lidia Segura & Ana Ramon

Summary

How can the studies of addiction problems and marginalization hit the balance between the aims of efficient policy and democratic participation in a manner that informs the policy making of the European Union? In this chapter, we explore how the EU frames the transfer of policy ideas and the patterns for participation of interest groups and formal authorities. The multi-level governance structure of the EU creates new networks and stakeholder alliances. In situations where policy choices are highly contested, it is especially important to pay attention to the possibilities for bottom-up participation. Good governance is legitimated by its good outcome as well as its basis in the civil society.

Introduction

In order to provide advice for policies in the area of addiction and lifestyle at European level we need to understand some of the basic principles for governance in the European Union. Over the last 20 years a huge amount of literature has been produced on EU politics and governance, which shows that there is a qualitative difference between the EU mode of governance and traditional national governance. There are also fundamental differences between EU and other international organizations when it comes to impact on governance at different levels (Chatwin 2007, Bewley-Taylor, 2013).

The question about the power balance between national and supranational level has been a core theme in the study of European integration. In a situation where Europe does not seem to move towards some kind of federal system, but rather seems to stay as a union of sovereign national states it has become important to understand how the governance levels operate in different policy sectors. The European Union is a moderation structure for the travel of policy ideas and transnational trends (Elvins 2003, Uchtenhagen 2010). As a transnational actor, the EU has a much stronger direct influence on national governance processes and policies in practice than the UN. The EU also needs to consider the national and local political situation in their political decisions. According to Uchtenhagen (2010) this is the main cause for the more pragmatic role of the EU in drug policy. There are more common rules and norms and more common structures compared to the UN.

This chapter will explore implications of the multi-level governance structure of the EU with a special focus on civil participation in the policy processes and the role of the regional and local governance levels. We use empirical examples from Catalonia and base the discussion on experiences from the Catalan health authorities. We want to highlight the need for a balance between the aim of efficient governance in terms of good outcome and well-being on one hand, and the aim of civil participation and democratic influence on the other.

Legitimate governance – studying what is happening "in between"

The addiction problems which are studied in ALICE RAP are influenced by policies in a broad specter of policy sectors, such as the criminal- and justice sector, the health and social policy sectors, and the consumer policy and market regulation. We study addiction as a general phenomenon; from young people enjoying internet gaming, to groups of adults with serious addiction problems related to alcohol and illegal drugs. Groups of people with addiction problems find their way to political influence through a number of different interest organizations, self-help groups on local or national level, or as individuals in contact with the local and national welfare systems.

The legitimacy of governance will continuously be located between the consideration of efficiency and democracy and should achieve both aims. The system theory approach describes the policy process as a sequence of *input, throughput* and *output,* where *input* is made of democratic chosen rule-makers and the *output* is the effect for the citizens. The intermediary space, the *throughput,* is essential for the quality of the governance in order to achieve the four aims of: "efficiency, accountability, openness and inclusiveness of the governance process" (Schmidt 2013: 3). When we evaluate the quality of the policy process and point at the necessity of a balance between efficiency and democracy, we need to bear the whole process in mind. Including the *input* (as input by representative bodies or interest groups - political participation) and the *output* as policy in practice (governance efficiency). Following from this, the legitimacy depends on whether the: "…input politics, throughput process and output policies are acceptable by the citizenry, such that citizens believe that these are morally authoritative and they therefore voluntarily comply with government acts even when these go against their own interest and desires" (Schmidt 2013:10).

The relation between the political rule-makers and the people affected by the exercise of political rule is a main interest of the political sociology. This relation is essential for judging the political system according to Zimmermann and Favell (2011). The quality of the European democracy is "… about the potentials found by certain groups in redefining their field of political action at the European level, as well as their struggle with incumbent power holders in these various social fields at the national level" (Zimmermann and Favell 2010: 509).

One way of redefining the field of political action in the EU was to expand the maneuver within EU from just harmonization of legal regulations to include integration by "other means" such as cooperation in knowledge production and a stronger emphasis on the communication between civil society organizations and the EU institutions. These processes have also been described as "soft law". The concept captures harmonization processes in areas outside the scope of formal EU laws. It shows that integration can take place without top-down legal regulations, by policy making through codes of conduct, recommendations and a wide diversity of coordinating activities (Örnberg 2009). Another example of integration by "other means" is the development of administrative structures such as the establishment of a number of agencies under the Commission. There were a total number of 43 agencies under the Commission in 2012. The European Drug Monitoring Centre, Europol and European Centre for Disease Prevention and Control are among these agencies. According to Egeberg and Trondal (2010) these agencies must be recognized as executive bodies which entail real action capacity and therefore strengthen authority. These agencies have developed to be building blocks for a multi-level and integrated union administration. The democratic challenge caused by the question about the formal authority of these agencies and the democratic basis for the decisions in the variety of expertise networks led

to the introduction of an "open method for coordination" as a "new governance method" by the Commission in the late nineties. The independent status for the agencies has also been questioned, and the EU decided on a roadmap for a common approach for the EU decentralized agencies in 2012 (European Union 2012).

Translations and transfer of policy ideas in multi-level governance structures

There is a fundamental difference between governance by legal rules or governance by knowledge based practices. Cooperation and coordination structures that are associated with the concept of soft law dominate the political field of public health in the EU. We can enlist four different groups of actors who are important in the area we study:

- The EU agencies, EMCDDA and Europol that deal with quasi regulatory and political issues
- The organized interest groups participating in the EU structure, such as the EU Civil Society Forum on Drugs
- The number of transnational interest groups that work bot at national and international level
- Knowledge brokers (epistemic communities)

Broadening the scope of action; the alliance between regional authorities and social movements in cannabis policy

The public health policies of Catalonia provide a good illustration of how policy making takes place in the multi-level structure of the EU. The Catalan authorities have no direct access to the formal structures of the EU, and depend in this sense on how the national Spanish government gives priority to certain policy areas. There are, however, a number of alternative routes of influence for the regional authorities:

- The EU's *Assembly of Regional and Local Representatives* (CoR) (http://cor.europa.eu/)
- A range of different projects to promote collaboration in research and policy making (of which there are a large number)
- Network structures that represent practical tools, services and opportunities for cooperation (as for instance EUREGHA http://www.euregha.net/)

The Catalan Ministry of Health has found new sources of expertise, and also a way to become influent, through the participation in a number of larger EU-projects over the last years. The health authorities have been involved in projects funded by DG Sanco, DG Justice and DG Research in the area of alcohol, tobacco and harm reduction policies. These activities have opened direct access to expert platforms where future policies are researched and discussed. The activities have facilitated the *translation* of the research into policy actions at the regional level and resulted in some rather applied and practical network structures.

The experiences from Catalonia shows the same pattern as the pattern at a global level; the tobacco policy has developed through top-down processes while regulation of alcohol consumption and cannabis policies open a larger scope for regional policy making. In the following sections, we will discuss the experiences from the cannabis policy in more detail.

Regional governance and the cannabis clubs

The use of cannabis has a stronger tradition in the Spanish culture than in most other European countries. The Spanish legislation was updated in 1967 in order to meet the demand of the 1961 Single Convention. The 1967 law permitted therapeutic, industrial and scientific use of cannabis and its derivates. Thus, Spain has never clearly criminalized consumption of illegal drugs. The present law, passed in 1992, prohibited consumption in some places (public areas) and some activities related to drug use (disposing syringes in public places). The consumption of cannabis is not criminally punishable, but is subject to administrative penalties. Cultivation and possession are considered a crime when they involve trafficking, but not in the case of personal consumption (Arana and Sánchez 2011, 163).

The establishment of the Association Ramón Santos for Cannabis Studies (ARSEC) in Barcelona in 1991 represents the starting point for the activist movement for people using cannabis in Spain (Arana and Sánchez 2011). The movement grew during the nineties with the phenomenon of Grow-Shops, followed by Smart Shops and finally by the establishment of large international fairs for the promotion of cannabis, such as Spannabis, 2004. The first Cannabis Social Club opened in Barcelona in 2001, and was followed by many more in Catalonia and the Basque Country the following years. These clubs are organized following some basic principles:

- Non-profit, shared responsibility
- Self-production and self-distribution
- Risk reduction
- Information service, responsible use
- Respecting the Spanish legal framework

Along with the growth of the cannabis movement Catalonia utilized its room for independent action at regional level and supported legalization at national level. In 2001 the Catalan parliament pleaded unanimously for the central government to legalize the medical use of cannabis. The resolution states that the parliament should take all necessary administrative measures to authorize the medical use of cannabis.

One important feature of the system in Catalonia is that the association of clubs has become a well-organized associative civil and economical movement. The Catalan authorities consider their policy to be pioneering by providing innovations and new policies in the regulation of consumption, supply, cultivation, and health promotion.

At present, the cannabis clubs represent an important political group. The steadily increasing number of clubs has created public concern in recent years. The authorities have no exact overview of the numbers of clubs and members, even if these clubs have achieved legal recognition (Room et al 2010: 100). Up to 350 Clubs have been reported, with an approximated figure of up to 140.000 members[12]. There is an active public debate on cannabis regulation in Catalonia, but we don't find published research on the effects of the club system nor on the content of the public debate.

It is reasonable to expect that the club-system will challenge the Spanish legal framework if it continues to grow. The legal concept of "*shared responsibility (consumption)*" that allows

[12] ALICE RAP (2014, p.21) The number of members in each club varies from 100 to more than 5000. There are no register or overview of this.

consumption on private ground, and the members should not sell or promote cannabis [13] has up to now protected the clubs. The health authority in Catalonia has recognized the need for regulation of the cannabis clubs.

To hit the balance: Efficiency, accountability, openness, inclusiveness

The ideal of good governance entails the four values efficiency, accountability, openness and inclusiveness. The institutional structure of the EU opens up for alternative processes in policy making and governance, but the Union still struggles with its democratic deficit. The problems are especially related to the lack of accountability and the visibility of the outcome of the policy making. Even more so, it is important to understand how the policy making in the EU is relevant to policies on addiction and public health.

We have emphasized the special importance of the inclusion of the civil society and bottom-up processes in EU governance. The Catalan case illustrates the potential effect and relevance of civil society and interest organizations activities from below. Bottom-up processes have been important in the development of Catalan policy on cannabis. The organized cannabis movement started in Barcelona, and has become a visible and strong civil actor. The cannabis club system serves as a model for a practice within the legal framework of Spain. In this way the association of clubs got a legitimate right to be a part of the political process. In the alliance with the regional authorities, they have succeeded to create a discourse of regulation.

Still, however, it is difficult to tell who are accountable and there is lack of knowledge about size and harm of the system. The club system has a potential as a policy model that can be transferred to new contexts. The effects of the system need to be investigated further.

Take home messages

The institutional structure of the EU opens new pathways for organized interest groups.

The democratic quality of the multi-level governance depends on the inclusion of civil society actors.

Conflict of Interest Statement

The authors of this chapter have no conflicts of interest to declare.

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[13] [see the Supreme Court's decisions of 8 March 2000 (EDJ 2000/3367); 31 March 2006 (EDJ 2006/37295); 22 November 2012 (RJ 2012/11378) and 13 June 2013 (RJ 2013/5028)]

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CHAPTER 5. WEBS OF INFLUENCE: CORPORATE IMPACTS ON GOVERNANCE

David Miller & Claire Harkins

Summary

Economic actors are intensely aware of their image and the reputation of both their brands and the corporation itself. They know that challenges to their reputation can come from a variety of sources, and that corporations, both specifically and generally, are viewed with a fair degree of scepticism by both mass and elite audiences. As a result, transnational corporations increasingly plan strategies to defend their reputation and to protect and extend their market share and political influence.

In understanding governance, we suggest that it is important to properly account for corporate strategy. In doing so, it is necessary to understand that corporate strategies routinely involve the use of both direct and indirect means of influence. Direct include all those strategies targeted at decision and policy makers. Indirect, by contrast, include those where the corporation works to influence a third party (such as consumers, decision makers, regulators or competitors) with the aim of capitalising on this to influence policy.

This chapter examines the literature on governance, arguing that it neglects the study of corporate influences on policy and governance. It then examines the various domains that corporate strategy sets out to dominate and 'capture'. We then move on to examine the relatively new phenomenon of partnership governance in which corporations and others are invited into the state to make policy, obviating the need to lobby for it. This, we suggest, is the ultimate form of capture - the capture not just of this or that policy but of the policy making mechanism itself.

Introduction

Corporations are increasingly prominent public and policy actors. They are intensely conscious of their profile and the reputation of both their brands and the corporation itself. They know that challenges to their licence to operate can come from a variety of sources, and that corporations both specifically and generally are viewed with a fair degree of scepticism by both mass and elite audiences. As a result, they increasingly plan strategies to defend their reputation and to protect and extend their market share and political influence.

In understanding governance, we suggest that it is important to properly account for corporate strategy. In doing so, it is necessary to understand that corporate strategies routinely involve the use of both direct and indirect means of influence. Direct include all those strategies targeted at decision and policy makers. Indirect, by contrast, include those where the corporation works to influence a third party (such as consumers, decision makers, regulators or competitors) with the aim of capitalising on this to influence policy.

Governance is a newly popular term in policy sciences, which both reflects and constructs changes in how governments work, helping analysts to focus on more than simply institutions of government. Approaches to governance typically go beyond institutional

analysis of government to include other stakeholders involved in the development, implementation and evaluation of policy. The concept of governance is broad and refers to decision-making processes in both public and private sectors, including multiple actors. This is an advantage because, in practice, changes in the state mean that governments are increasingly reliant on other stakeholders for the implementation of governance in the form of policy and public services (Leys 2001). In the area of public health, governance in relation to alcohol, gambling or food is governed by a variety of policy networks. The activity of corporate and economic actors within these networks facilitates relationships with other industry members, policy makers and stakeholder members. This institutionalises the external interests of a particular group within the policy process.

Rhodes (2007) and Kooiman (2003) argue that the governance narrative takes a broader perspective than more institutionally-focused, prior work by recognising the limits of the state and its reliance on other actors to exercise power and to fulfil its obligations. Rhodes states in relation to this that 'the informal authority of networks supplements and supplants the formal authority of government' (Rhodes 2007:6). In the abstract this might appear reasonable, but considered in relation to live policy areas such as alcohol, ethical weaknesses appear. This is particularly the case when there is conflict in the policy process, as is the case when public health measures are opposed by those with vested interests. Because of the assumption of pluralistic policy consensus, Rhodes (2007) underestimates how these interactions and the inherent conflicts between actors shape policy outcomes. The model Rhodes proposes does not appear able to manage disputed ground within policy circles and, rather, assumes an aura of calm and rational negotiation in policy-making.

As a result, the influence of economic actors within modes of governance is often overlooked and regularly underestimated. We argue that in order to understand modes of governance in practice, the behaviour and tactics of corporations in their efforts to facilitate conditions ripe for promoting and defending their business interests must be considered.

Despite these insights into governance, in practical terms limited empirical work exists to show how these relationships and interactions actually work and affect (or not) policy outcomes. Work such as this should start by looking at the strategies of actors in the context of the resources they are able to marshal and not from an assumption of policy consensus. Accordingly, we now turn to outlining the strategies adopted by corporate actors.

Lobbying

Beginning with corporate strategy and following corporate actions, wherever they take us, reveals – amongst other things – that lobbying is widespread in the US and EU – indeed at every level of governance (Dinan and Miller 2008, 2012; Miller and Dinan 2008). Much writing on the topic of lobbying – and indeed official definitions of lobbying – adopt a narrow conception focusing only on direct meetings between lobbyists and decision makers. In reality, it encompasses much wider activities. At each level of governance, lobbyists attempt to influence decisions by capturing policy processes and outcomes. This has been described as ‘institutional corruption’ or as ‘market-driven politics’ or ‘post-democracy’ (Miller, 2015; Leys, 2001; Crouch, 2004). Lobbyists attempt to secure and capitalize on favourable opinions by offering incentives in the form of travel and hospitality, paid and unpaid advisory positions, and – the big prize – board memberships once politicians and senior civil servants leave public service. The ‘revolving door’ is the term used to describe this phenomenon. Institutional corruption is not a term widely used by theorists of governance, though they do discuss the rise of the ‘unelected’ in policy making – a

development of which writers such as Vibert (2006), approve. We see this as symptomatic of what Janine Wedel has called 'flex networks', a new development whereby the entanglement of public and private sectors leads to the breakdown of notions of ethical behaviour and the collapse of the ability to police such standards as exist (Wedel, 2009). In more recent work, Wedel (2014) argues that a new 'stealth corruption' has created new forms of unaccountability.

Direct Lobbying

Lobbying can describe any activity that seeks to influence public policy and governments and governance structures. Lobbying is an industry in its own right that is regarded as a sub-sector of the Public Relations industry and is known as 'public affairs' – a terms that masks the generally 'private' nature of lobbying in practice. In the UK the lobbying industry was worth around £1.9 billion in 2009, double its size in early 1990s (Powerbase 2014a). Many lobbyists are former politicians or public officials with contacts and valuable knowledge of the policy domain. Lobbying involves corporate actors, or their representatives, engaging directly with decision makers on key issues in order to persuade them to share the corporate position. This can involve formal meetings, consultations and presentations as well as informal meetings, dinners and hospitality. Direct lobbying is important for corporations; it is, however, only one of a variety of means that corporations have at their disposal to manage various social domains. Indirect lobbying utilises the realms of media, science and civil society.

Indirect Lobbying

Lobbying or corporate public relations campaigns are strategies that include a range of elements, including commissioning reports from think tanks, scientists and academics or utilising the media to shape public opinion. Indirect lobbying has the same aim as direct lobbying which is to affect decision making. It incorporates a wide range of tactics that together contribute important components to the overall lobbying strategy.

Science Capture

Corporations often produce or commission science that they subsequently use in order to advance and support their campaigns. For example, the Centre for Business and Economic Research was hired by SABMiller to provide a report that would be used to undermine the Scottish Government's efforts to introduce a minimum unit price for alcohol. The CEBR report found no economic basis for the introduction of minimum pricing and tried to question the established evidence base that supports the policy (CBER 2009). The **Weinberg Group** describes itself as helping 'our clients improve manufacturing processes, clear regulatory hurdles, and defend products in the courts and the media'. Funded by the trade association the Brewers of Europe, the Weinberg Group produced material which was used to undermine public health evidence on alcohol control policy (Anderson & Baumberg 2007). Creating doubt and producing contradictory scientific accounts is a corporate tactic pioneered by the tobacco industry in their efforts to fight threats to their economic interests that emerged from growing awareness on the harmful effects of tobacco (Michaels 2008). There is a growing body of research that suggests industry funded science is more likely to result in favourable results for the funder (Babor and Miller 2014). Attempts to manage science via funding or by attacking inconvenient findings are complemented by attempts to manage media coverage.

Media Capture

The media can be 'captured' by the corporations via the influence of media ownership, advertising, public relations and by attacking critics. Media capture is important for a variety

of reasons, but one of them is in its use in securing policy capture. Media capture is aided by the use of seemingly independent organizations which perform a public relations role for industry at one remove. (Miller 2009)

One example is the Social Issues Research Centre (SIRC), an 'independent, non-profit organisation' that says it carries out 'balanced, calm and thoughtful' research on lifestyle issues such as drinking, diet, and pharmaceuticals. However, it may be perceived that the company acts more like a public relations agency for the corporations that fund its activities. These include Diageo, Flora, Coca-Cola, the Sugar Bureau, Unilever, Masterfoods, GlaxoSmithKline, and Roche, among others. Although SIRC does publish a list of funders, it is not immediately apparent which company has sponsored which study and, in some instances, this information is not included in media reports (cited in Miller and De Andrade, 2010).
Although SIRC's publicity material regularly uses the term 'social scientists' to refer to its own staff, it uses the same personnel and office as a commercial market research company, MCM Research. SIRC's co-directors, Peter Marsh and Kate Fox, work for both organizations. The MCM website used to ask: 'Do your PR initiatives sometimes look too much like PR initiatives? MCM conducts social/psychological research on the positive aspects of your business. The results do not read like PR literature, or like market research data. Our reports are credible, interesting and entertaining in their own right. This is why they capture the imagination of the media and your customers' (cited in Ferriman, 1999). Following the exposure of these links, the SIRC has now subsumed MCM, indicating a very close relationship.

Civil Society Capture

Civil society is often seen as an arena of citizen interests and democratic possibilities. It is certainly true that such groups do exist, are active and can be effective, for example in pushing public health measures. Nevertheless, corporate and corporate linked funded (for example via charitable Foundations maintained by the corporate rich) are very significant components of civil society funding. Think tanks and third party organizations are often used by large corporations to spread and garner support for their position. For example, the pro market, liberal (or 'neoliberal') Adam Smith Institute and the Institute of Economic Affairs (IEA) are multi-year recipients of tobacco industry funding, and the IEA has been in receipt of funds connected to the alcohol, food and retail industries. But these think tanks and many others are not transparent about their links to the corporations, preferring to operate policies of 'donor confidentiality' or to launder funds through secretive 'donor advised' intermediaries (Miller and Harkins 2015: 227-9; Miller et al 2014).

Industry-friendly experts are often recruited to present scientific or complex information as in the case of the American Council on Science and Health (Moynihan 2010). Additionally, groups are sometimes started to launch campaigns apparently independent from industry, such as the recent launch of Action on Consumer Choice in the UK (Doward and Bissett 2014). The use of fake grass roots citizen groups, or 'astroturf' organizations, is a common component of indirect lobbying. These appear to be genuine charitable or grass roots organizations set up by or in the interests of ordinary citizens.

Though civil society is often touted as a means to advance citizen interests, it is quite clear that much of civil society is either conflicted by receipt of corporate or corporate-linked funding (as in the case of some well-meaning groups) or is actively part of corporate strategy (as in the case of astroturf, front groups or neoliberal think tanks).

Policy Capture

Policy capture is the ultimate aim of all of these tactics and strategies of lobbying. This is accomplished by direct contact with decision makers as well as by indirect management of the information environment around decision makers. It is clear that lobbyists supplement the content of their approaches to decision makers by attempting to recruit former politicians and civil servants via the revolving door. This is a chronic problem at national and EU levels, as recent examples in relation to alcohol have shown (Miller and Harkins 2013). But perhaps the most important example of policy capture is the advent of partnership governance.

Self- and Partnership Regulation

Self-regulation has become an important part of the governance of addictions. It has become the dominant paradigm in tackling public health issues arising from the use of addictive products. Partnership governance dissolves the line between corporation and policy maker.

In the UK, an early example was the Portman Group, created in the late 1980s. It was set up by the alcohol industry, reportedly at the suggestion of a Tory peer to stave off the threat of further regulation of alcohol. (Carey 2003) Twenty years later, the same companies who established the group continue to finance it. Its directors are all alcohol industry executives. The Portman Group claims that its role is to promote social responsibility in the alcohol industry, with a particular focus on responsible marketing. It claims to 'show leadership on best practice in the area of alcohol responsibility' and to 'foster a balanced understanding of alcohol-related issues.' (The Portman Group n.d.) In reality the group acts as a lobbyist for the alcohol industry, acting against further alcohol control policy in public and policy debates (Harkins 2010). The Portman Group was also instrumental in the establishment of 'Drinkaware', a national charity to promote responsible drinking and provide alcohol education. Despite claims that Drinkaware is an independent organization, it continues to be funded in its entirety by the alcohol industry. Drinkaware presents a view of alcohol and its abuse which is consistent with the alcohol industry's philosophy, and routinely downplays the serious health and social consequences that alcohol presents to society (Powerbase 2014b).

More recently, self-regulatory bodies have been supplemented with partnership regulation. The EU Alcohol and Health Forum is one example, as is the UK Department of Health's Public Health Responsibility Network Deal (PHRND). The PHRND was said to be intended to develop a platform where economic actors could work with governmental bodies and health professional to develop pledges to promote public health. In practice, the PHRND is dominated by economic actors who commit to voluntary actions that make little or no contribution to improving public health. The alcohol network of the PHRND has been unable to retain public health organizations as contributors or supporters. After initially attending six meetings, the six key civil society groups originally involved refused to participate further in the scheme (Royal College of Physicians 2011); they felt that the interests of economic actors were being put before public health and evidence on meaningful action. The only remaining non-governmental and non-industry core members of the group are a representative from the Association of Chief Police Officers and representatives from the charities Mentor UK and Addaction. Addaction works in partnership with Diageo, the world's largest spirit producer, and ASDA, a supermarket chain (Addaction 2014). Mentor UK also work with and receive funds form Diageo (Mentor UK 2014).

The food network has faced a similar reaction from organizations that work to improve public health. The British Heart Foundation and Diabetes UK felt unable to sign up to the network, stating that the deal was better for industry than for public health. The PHRDN proposals are, as in the case of the alcohol network, narrow and have often already been agreed in other policy circles. The House of Lords Science and Technology Select Committee (2005: 57) has also been critical:

> [The] Public Health Responsibility Deal pledge on obesity is not a proportionate response to the scale of the problem… [The Government] should consider the ways in which businesses themselves influence the behaviour of the population in unhealthy ways. If effective measures cannot be achieved through agreement, the Government must pursue them through other means.

The PHRND, like other partnership-regulatory schemes, does not provide a genuine opportunity to work towards improving public health. The pledges and commitments presented are minor, ineffective and many have been previously agreed. They allow industry a public relations opportunity while requiring them to do very little.

Both self-regulation and partnership regulation appear to favour the interests of the economic actors that produce products which are harmful to human health. Indeed, we can say that in addition to enabling undue corporate influence in policy on alcohol or obesity, the very form of partnership governance gives a structural advantage to economic actors.

Conclusion

Governance can be a useful term for understanding recent transformations in governmental practice because it stretches the conception of decision making to include policy actors outside of the government. However, it can also limit a richer understanding of the conflicts inherent in policy making on addictions when it assumes a consensual policy process. We argue that is important to focus on the strategies of policy actors in decision making - including, specifically, economic actors. Lobbying is a core function of corporate strategy. Indirect lobbying is used to attempt to exert power and control in varying social domains, while direct lobbying is reserved for decision makers within policy circles (Miller and Harkins 2010). We emphasize corporate strategy and its coherence (although internal tensions within and between corporations are common). We refer to the 'capture' of a range of domains, because it is important to understand that this is a question not only of ‘policy’ capture.

Corporate led globalization and neoliberalism have resulted in more stratified decision making, both devolving it downwards – for example to new parliaments or via subsidiarity, and coordinating it upwards – as in bilateral and multilateral trade deals. The neoliberal era ushers in a new political geography of governance. We need to pay close attention to how corporate agency is differentiated at the local, national and supranational level. Stratification occurs horizontally as well, so that decision making and power flow out from the state to private actors. Private actors (and some others) are invited into the state to make policy. It is no longer enough to think about corporations only as attempting to influence policy. In reality much decision-making power has been directly devolved to them while corporations are increasingly ‘internal’ to the state.

Take Home Messages

Corporations are highly conscious of their image, reputation and influence. As a result they plan how to interact with policy and governance strategically.

Corporate strategy can be followed by tracing corporate memberships and funding of a wide variety of organizations. This shows that corporations attempt to influence, dominate and 'capture' policy and a range of other domains, including science, the media and civil society – in part at least – as an indirect way to capture policy.

Corporations have had a measure of success in influencing policy in the area of licit products such as tobacco, alcohol, food and gambling. However, the more significant area in which they have been influential is in shaping the architecture of the policy process including how decisions are made. The 'partnership' approach is a key instance of this kind of influence.

Conflict of Interest Statement

David Miller and Claire Harkins have no conflicts of interest to declare.

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CHAPTER 6. THE GOVERNANCE OF ADDICTIONS AT THE INTERNATIONAL LEVEL

Robin Room & Jenny Cisneros Örnberg

Summary

This chapter considers the governance of addictions in an international perspective, focusing on structures and actions at a global level and within the European Union (EU) in the fields of drugs, pharmaceuticals, alcohol, tobacco and gambling. Both at a global level and within the EU, there is great disparity between different addictive substances and behaviours in the extent of and priorities in international governance of markets and their customers. Nonmedical use of psychoactive substances under international drug control treaties is subject to a strict prohibitory regime, and at the EU level implementing that regime has been a political project of unification. In contrast, alcohol and gambling are subject to no public health-oriented international regulation, and trade treaties and agreements have been used as instruments to weaken national and local control regimes. Tobacco and psychopharmaceuticals (along with other medications under prescription regimes), are at intermediate positions. At the EU level, court decisions on trade and national control issues have paid substantial attention to considerations of public health and interest. But at the global level, international trade and investment law has fairly systematically operated to undercut control for public health or in the public interest in all areas other than the drug prohibition treaties. Particularly globally, there has been a tendency toward a Manichean system where an addictive commodity either is forbidden entirely or is subject to free-market rules with diminishing restrictions on the market and promotion.

Introduction

In this chapter, we consider the collective governance of addictions in a global perspective. Besides the self-governance of the individual who uses psychoactive substances or engages in addictive behaviour, the individual is subject to influences, informal and formal, from within the family and in other face-to-face relationships, from the local community and government and from larger social collectives such as the state, and beyond the state through international treaties and their implementation. These influences from various interpersonal and collective levels will push in both directions, towards more use by the individual as well as less or no use, but our primary concern here is the public health interest, which usually points in the direction of less use.

The chapter's primary focus is on international structures and actions, both at the global level as reflected in the treaties and organs of the United Nations and within Europe as reflected in the institutions and actions of the European Union (EU). Our perspective is comparative, across psychoactive substances and gambling.

We start with a brief history of international controls and regulations in our topical area. We then characterise the different international regimes for the different substances and for gambling, with attention to their effectiveness from a public health perspective. The public health interest is in reducing to a minimum harm to the user and to others from the substance or behaviour. Controlling use or behaviour and its circumstances – not necessarily

eliminating it – is thus an important element in public health-oriented harm reduction. The chapter then considers the threat from international trade and investment treaties to public health interests in controlled markets in addictive substances and behaviours. It ends with a brief discussion of current trends.

The emergence of international controls, and a typology of control regimes

Psychoactive substance use and addictive behaviours have been part of human life and commerce since before recorded history, and have been subject to collective regulation, including by states, for thousands of years. The European imperial expansion in the centuries before 1950 was a main instrument in the globalization of such use and behaviours (Courtwright, 2001), and the availability and affordability of such products as beer and spirits were magnified by the changes of the industrial revolution. The social fallout of waves of intoxication with industrialised alcoholic beverages in much of Europe and its colonies produced a counter-response of strong temperance movements in the 19th and early 20th centuries, resulting in government control regimes and even in alcohol prohibition in 13 countries (Schrad, 2010). In the late 19th century, use of opiates and other psychoactive substances also rose, with increasingly industrialized production, and temperance movements expanded their scope to press for control regimes for them.

As portable and concealable goods, psychoactive substances are easily transported and traded, and temperance movements began to press for international systems of governance, as a protection for national control regimes. Alcohol was first, with international agreements restricting the "trade spirits" market in Africa; international restrictions on opium and other "narcotics" followed early in the 20th century (Bruun et al., 1975).

In the first decades of the 20th century, then, restrictive regimes were put in place, particularly in societies under strong British or American influence, for a variety of addictive substances and behaviours. The substances – tobacco, alcohol, opium, cocaine, etc. -- tended to be regarded in a common frame by doctors specializing in "inebriety or narcomania" (Kerr, 1894), although the extent of control policies often differed according to how enculturated the substance was. In the same period, there were also heavy restrictions, enforced by criminal law, limiting the availability of gambling (Dixon, 1991).

But in the remainder of the 20th century, this commonality of perspective was fragmented (for the U.S., see Courtwright, 2005). The international alcohol agreements, for instance, eventually became dead letters (Room, 2008). The result has been what Braithwaite and Drahos characterized in 2000 as "five totally separate regulatory regimes for different types of drugs":

1. An illicit drugs regime subject to totally globalized prohibition;
2. A prescription drugs regime which was globalizing slowly under US/WHO leadership until 1980 and somewhat faster under EC leadership since then;
3. National non-prescription drug regimes which are not globalizing;
4. National alcohol regulation regimes which are not globalizing (prohibition here, regulation here, deregulation there);
5. National tobacco regulation regimes, elements of which are progressively globalizing. (Braithwaite & Drahos, 2000, p. 360)

How separate all the regimes are can be argued: prescription and nonprescription drugs are often regulated by the same national authorities, and the provisions of the "illicit drugs regime" have strongly affected prescription regimes. But, while there have been some

developments since 2000, the Braithwaite and Drahos typology is still recognisable today. Gambling regimes, not covered in their discussion, are national or subnational in scope, similar to non-prescription drugs and alcohol.

We shall consider first regimes which include measures on the global level, and then regimes where regulation is primarily at national and subnational levels.

Global drug control: a rigid prohibition regime

For the hundreds of substances now covered by the three international drug treaties of 1961 (as amended in 1972), 1971 and 1988, a strict prohibition regime for nonmedical use applies essentially throughout the world -- although this appears to be in the process of splintering for cannabis (Room et al., 2010; Room, 2013b; Kilmer et al., 2013).

The global drug control regime includes not only stringent controls on international trade in the substances covered, requiring criminalization of all trade not carried out under the auspices of the system, but also requires prohibition of domestic markets, and for that matter of possession of drugs, other than for authorized medical use[14]. The degree of prescription of and intervention in domestic law is unmatched in international agreements for any other item of potential consumption.

The drug control regime is also a market-planning mechanism - an unusual form of trade treaty in that responsibility for assuring and organizing the distribution of an adequate global supply of opium for medical use is assigned to an international committee, the International Narcotics Control Board.

Evaluations of the effectiveness of the regime have given it a mixed report (Room & Reuter, 2012). Concerning some prescription medications, such as barbiturates, the combination of international control and shifts in medical opinion appear in the long run to have restricted levels of use and harm. But for the most common plant-based drugs, derived from opium, coca and cannabis plants, as well as for some synthetic drugs such as amphetamines, it is hard to sustain an argument that the system has come anywhere close to succeeding in its aims. Meanwhile efforts to enforce the system have resulted in substantial individual and collective harm. In terms of assuring a supply of opium for medical use, the system has more or less succeeded with respect to high-income countries except in time of war, but there are wide disparities in access to pain medication globally; the WHO has estimated that 80% of the world's population lacks adequate access (WHO, 2007).

Particularly with the adoption of the 1988 treaty on illicit trafficking, the drug treaties and their governance and enforcement system moved more and more into the domain of law enforcement and away from public health concerns. In the mid-1990s, those in public health positions who came to play key roles in the inception of the Framework Convention on Tobacco Control were initially deterred from moving in the direction of a treaty concerning tobacco because they had "concluded that these narcotic-control treaties […] were in the 'bad treaty' class from a public health point of view; they wouldn't help us." (Reynolds & Tansy, 2012, p. 21).

[14] As noted, the strictures of the global regime have been stretched particularly for cannabis, earlier by such phenomena as de-facto tolerance of (strictly regulated) "coffee shops" selling cannabis in the Netherlands and by U.S. state provisions for "medical marijuana" dispensaries, and are now being disregarded in two US states and Uruguay (Room, 2013b).

There is substantial agreement among scholarly accounts of the international drug control system that the US has long played a leading and indeed hegemonic role in it. It has had a strong influence in the Commission on Narcotic Drugs and other drug regime agencies. It also exerts influence through such means as tying its foreign assistance to its assessment of drug treaty compliance, and through an overseas-posted corps of Drug Enforcement Agency agents which outnumber the international staff of the UN Office of Drug Control (Babor et al., 2010b, pp. 214-217). However, in recent years a number of Latin American countries have been edging away from the "Washington consensus" on drug policy, in part because of heavy social costs of the policies in their countries, and in part reflecting a new self-confidence. It seems likely that the U.S. in future will be playing a less hegemonic role in the system (Youngers, 2013). In particular, the changes in cannabis policy within the US, driven from below, are making it unlikely that the U.S. can continue to act in its traditional roles concerning this drug.

In the context of the European Union, illicit drug issues have served as an instrument of unification. In external relations, reaching consensus on a common position on drug policy, for instance at the UN Commission on Narcotic Drugs, has been defined as part of building a united Europe. Internally in the EU, the coordination has been primarily in terms of drug enforcement, which also became "a European political project": "drug threat and the enforcement rationalized on the basis of that threat have become the basis on which to legitimize a broader set of security measures among member states while marginalizing alternative analyses and policies on drugs" (Elvins, 2003, pp. 179; 23). The emphasis on law enforcement grew in the context of agreements such as Schengen which removed border controls between most member states. The emphasis also reflected that the 1992 Maastricht Treaty established cooperation on Justice and Home Affairs as a "third pillar" of the European integration, whereas the European Commission's competence in public health matters was later and weaker, only made explicit in the 1997 Amsterdam Treaty (Elvins, 2003, pp. 76-79). The emphasis continues in the EU Drugs Strategy for 2013-2020, which identifies the emergence and rapid spread of new psychoactive substances as a new challenge which needs to be addressed, including through the strengthening of existing EU legislation. In 2013 the European Commission proposed to strengthen the EU's ability to respond to 'legal highs' – new psychoactive substances used as alternatives to illicit drugs such as cocaine and ecstasy. The proposals follow warnings from the EU's Drugs Agency (the EMCDDA) and Europol about the scale of the problem and a 2011 report which found that the EU's current mechanism for tackling new psychoactive substances needed bolstering (European Commission, 2011).

Pharmaceutical prescription regimes: internationalisation by attraction?

Many of the substances included in the drug treaties, those with medical utility, are governed also by national prescription regimes. These regimes are not directly controlled by the drug treaties, but are influenced by them (for instance, the treaties have globalised the model of a medical prescription separated from the dispensing of the drug) (Babor et al., 2010b, p. 180).

The prescription regimes, which apply also to a variety of nonpsychoactive medications, are otherwise not subject to a formal global public health treaty or agreement, other than concerning such formal matters as generic nomenclature. The big pharmaceutical firms tend to have stayed away from opiates, including synthetic ones, and some of the other medications covered by the drug treaties, apparently considering that the risk of bad publicity is not worth it (Babor et al., 2010b, p. 83).

The global pharmaceutical industry is concentrated in the US (22 of the 50 top companies), Western Europe (16) and Japan (10), with 45% of its total revenue from the US market (Babor et al., 2010b, p. 82). The concentration of the industry is argued by Braithwaite and Drahos (2000, p. 369) to have been a reason that WHO did not succeed in "securing convergence of regulatory standards for pharmaceuticals" in the 1980s and 1990s. Instead, there were confrontations with manufacturing countries – first with the US and later with Japan. Europe, however, had a history of internationalization of standards dating back to the 19th century, and a pan-European regime was under way already after a 1975 EC Directive. Hauray and Urfalino (2009) have documented that the internationalization of the European regime was a process of "mutual transformation" under pressure from the rise of evidence-based medicine and competition particularly with Anglophone countries. Each EU member state has its own procedures for the authorization of new medicines, within their own territory. However, the European Medicines Agency (EMA), operating since 1995, is responsible for the compulsory centralized procedure from which pharmaceutical companies, for certain medicines such at treatment of HIV/AIDS, cancer and diabetes, have to receive a marketing authorization.

Braithwaite and Drahos note that the internationalization within Europe also had wider effects: "from 1965 to 1998 Europe moved toward a system of binding regulation that applies throughout the EU", and "from this position of growing strength" enlisted first Japan and eventually the US in a program of harmonization (Braithwaite & Drahos, 2000, pp. 371-2). At the levels of production and distribution, thus, there is a global prescription medicine regime which is built around the oligopoly of a limited number of transnational corporations and the regulatory regimes of the producer countries, without any international treaty specifically on pharmaceuticals. It is clear that prescription systems, essentially a form of rationing system, with doctors and pharmacists as gate-keepers on each other and on the user, can be effective in limiting levels of use and harm (Babor et al., 2010b, pp. 179-200). A new cloud over the situation, however, is the rapid expansion in recent years, particularly in the U.S., in the volume of consumption of prescribed opioids (Fischer et al., 2008).

International control of tobacco: globalization in baby steps

The Framework Convention on Tobacco Control was adopted in 2003, came into force in 2005, and has been acceded to by 177 countries. It is the first treaty negotiated under World Health Organization auspices. As a Framework Treaty, it is intended to be supplemented by protocols, and the first of these, a Protocol to Eliminate Illicit Trade in Tobacco Products, was agreed on in 2012 but has not yet entered into force.

The Framework Convention sets a number of standards concerning taxes and other measures to reduce demand, regulation of contents and emissions, packaging and labeling, limiting passive smoking, and banning advertising. But, unlike the drug treaties, most of the provisions are stated in terms of goal-setting and exhortation, rather than of imperatives. A number of Guidelines on implementation of articles of the treaty have been adopted and others are in preparation, although their legal status in case of disputes is not clear. A review of progress at national levels five years after the convention came into force showed progress in some areas but less in others (Nikogosian, 2010).

In the context of the European Union, tobacco is an unusual case. The EU took an active role in the process leading to the FCTC and reducing the harm from smoking is today one of the top public health priorities within the Union. Over the past two decades there has been shared responsibility between the EU and member states for tobacco control policies, where the EU has the capacity to coordinate, complement, and support public health efforts

(Studlar, 2012). Nevertheless, as Alemanno and Garde (2013:18-19) remark, "EU tobacco control efforts are marked by a strong regulatory involvement from the EU…. As a result, this field of EU policy has been at the forefront of a 'federal' experimentation, helping delineate the limits of EU competences and the relevance of the principles of subsidiarity and proportionality for EU law and policy making". Thus the 2003 EU prohibition against advertising and sponsorship of tobacco products was adopted on the legal basis of the requirement for equal treatment in the "internal market" (Directive 2003/33). Germany has twice challenged the validity of this directive, at first successfully, arguing that it in reality it is a disguised public health measure which does not contribute to the establishment or the functioning of the internal market (see Case C-376/98 and Case C-380/03). Since health considerations, rather than the promotion of free movement of tobacco products, have constituted a decisive factor in the adoption of both the Tobacco Advertising and the Tobacco Products Directives, the approach has created serious tensions around the legitimacy of EU regulatory interventions (Alemanno & Garde, 2013).

International control of alcohol and of gambling: a blank slate

On alcohol, there is still no binding international agreement from a public health perspective, despite a number of calls for a Framework Convention on Alcohol Control (e.g., Anonymous, 2007). WHO has adopted a Global Strategy to Reduce the Harmful Use of Alcohol, but the resources devoted to its implementation are very scanty (Room, 2013).

The United Nations and WHO are presently engaged in developing global plans to tackle Non-Communicable Diseases (NCDs, such as heart disease, cancer, chest diseases, diabetes) on a basis as intensive and urgent as campaigns have been against infectious diseases. Alcohol has been included as one of the four main risk factors for NCDs, to be tackled and reduced in the Global Action Plan for NCDs 2013-2020. The voluntary global targets agreed on for risk factors include 30% relative reductions in tobacco use and in salt intake, but a 10% relative reduction in harmful use of alcohol. There is also a further restriction on the alcohol goal: "as appropriate, within the national context". The Action Plan sets out a variety of "policy options for member states" concerning each of the goals. The options set out for tobacco control include a number of specific measures, such as raising tobacco taxes, legislating tobacco-free environments, and comprehensive bans on tobacco advertising, promotion and sponsorship, all keyed to recommended actions in the Framework Convention on Tobacco Control. For alcohol, there is no specificity in the policy options: the ten headings of the Global Strategy are reproduced, without elaboration, and otherwise governments are asked to "formulate public health policies and interventions to reduce the harmful use of alcohol based on clear public health goals, existing best practices, best-available knowledge and evidence of effectiveness and cost-effectiveness generated in different contexts" (WHO, 2013). The relatively low target and lack of specific actions was the compromise solution after hard lobbying by the global alcohol industry, influencing the position of national delegations.

Within the EU, also, the alcohol area has been marked by a relatively weak approach to any regulation at the international level. The first EU Alcohol Strategy was adopted by the European Commission in 2006 in response to the growing recognition of the health impact of harmful and hazardous alcohol consumption in the EU. The development and continuation of the alcohol strategy can be considered a significant step in EU alcohol policy development. However, the difference at the EU level in handling between tobacco and alcohol is striking; whilst EU tobacco control has preferred a traditional command-and-control approach, the Alcohol Strategy has embraced self-regulation. The 2006 EU Alcohol Strategy acknowledges that "in some cases, where there is a cross border element, better

coordination at, and synergies with, the EU level might be needed" (Commission of the European Communities, 2006). However, as Allemano and Garde (2013: 19) summarise it, "very few EU harmonizing rules have been adopted to date to combat alcohol-related harm". Given the importance attached to subsidiarity in health matters, the idea of so-called added value – would EU intervention add value to the initiatives contemplated by member states if they had acted alone? – has been presented as a criterion for EU actions and policies (Randall 2001), and de-facto mostly answered negatively. The Audiovisual Media Services Directive (AVMS Directive) constitutes an exception, in that it lays down rules on the content of alcohol promotions in AVMS. These provisions are nonetheless extremely weak, and most member states have relied on the minimum harmonization clause contained in the Directive to adopt stricter measures to protect the health of their citizens better – leading in turn to a high degree of fragmentation of the internal market. Furthermore, the EU has so far failed to seize the opportunities offered by the EU Treaties for effective regulation of marketing practices which promote the harmful use of alcohol (Allemanno & Garde, 2012, p 50). On the other hand, the CJEU has accepted rather far-reaching public health measures at the national level when it comes to alcohol such as retail monopolies on alcohol and the Loi Evin -- the French law on alcohol advertising – which are clear interferences in the open market.

There has been little attempt to regulate gambling at the international level, although the rise of internet gambling has brought the issue to the fore. However, some individual nations have made energetic efforts to bring commercial internet gambling based outside their territory but involving national customers under control. Thus the U.S. has forbidden credit card companies and other financial institutions operating in the U.S. to pay attempted money transfers to gambling websites, though with limited success (Lester, 2008; Owens Jr., 2010; PR Newswire, 2013).

Within the EU, national restrictions and gambling regulations have been questioned in the name of free markets, and the legality of preventing foreign actors entering the market is contested in many member states. Increasing opportunities for cross-border gambling have facilitated the development of a global gambling market beyond easy state control (Cisneros Örnberg, 2006). As with EU alcohol policy, the European Commission has, in accordance with the subsidiarity principle, defined its tasks in the gambling area primarily as supplementing national control regimes, ensuring for example, compliance of national regulatory frameworks with EU law, efficient enforcement and the protection of consumers, minors and vulnerable groups, and the prevention of fraud and money laundering (European Commission, 2013).

International law as a threat to public health: trade and international investment law

The capacity of nations to control and reduce harm from psychoactive substances or gambling is substantially limited by treaties and legal decisions concerning international trade and investment. We have already mentioned the European Union's single market provisions; trade law restrictions through the World Trade Organization or bilateral and regional trade treaties are potentially a greater threat to public health measures. Both WTO and EU law start from the premise of trade liberalization. They also recognize that member states should be able to invoke public interest objectives, including public health protection, but provide that trade restrictions on public health grounds must be proportionate, i.e. legitimate and no more restrictive than necessary to protect public health (Alemanno och Garde, 2013; Anonymous, 2002). The problem with the "proportionate" principle is applying it in practice; it usually only applies if there is no other way with less interference in the

market by which the public health goals could be attained. Typically, the measure which is in dispute is but one among a number of measures which have been or could be taken, and the results of each, including the one in dispute, will be a relatively small improvement. The motivation for the measure is also often mixed, with local vested interests intermingled with public health concerns. In this situation, decisions by dispute resolution panels, often expert in trade law but not in public health, commonly go against the public health interest (Babor et al., 2010a, pp. 88-90).

There is no specific provision in the international drug control treaties which would override trade treaties. But one advantage of their privileged status in international law is that they seem informally to act as a protection from trade agreements and disputes: there has never been a World Trade Organization trade dispute concerning any of the substances the drug treaties cover.

There is no provision either in the Framework Convention on Tobacco Control concerning resolution of conflicts with trade laws, but this convention has certainly not afforded any de-facto protection against such disputes. Thus there are pending disputes with Australia and Uruguay on impairment to a property right in trademarks inherent in a plain-packaging or warning label requirement on cigarette packs (Vadi, 2012). There have also been trade disputes in diverse circumstances concerning alcohol (Grieshaber-Otto et al., 2000). A substantial list of high-income countries have lined up with their alcohol industries, for instance, to complain about proposed warning labels on alcohol beverages in Thailand (O'Brien, 2013). Similarly, the U.S. and Canada sued each other under the General Agreement on Tariffs and Trade (forerunner to WTO) concerning unequal treatment of alcoholic beverages under provincial and state liquor control regimes (Room et al., 2006).

European common market law has also been a constraint on public health provisions with respect to alcohol. Decisions concerning tobacco seem mostly to have come down on the side of public health (Vadi, 2012), but the Nordic systems of state control of alcohol production and distribution were considerably weakened by changes required to join the European Union or the related European Economic Space (Holder et al., 1998; Cisneros Örnberg & Ólafsdóttir, 2008).

On the other hand, decisions of the European Court of Justice in cases involving gambling, ironically, have tended to prod states into acting more in accordance with public health and interest, that is, in the direction of restricting gambling and associated addiction and harm. Many European Union member states have had state monopolies on gambling, with the monopoly justified as a control on the extent of gambling. The court's decisions that in order to keep a monopoly states have to show a good-faith effort to be acting in the public health direction has tended to push states in that direction (Cisneros Örnberg & Tammi, 2011).

Conclusions

In many aspects, the markets in psychoactive substances and gambling are globalised, and control of them is increasingly concentrated. Humankind's addictions have proved to be powerful drivers of capital accumulation, whether the market in the particular addictive commodity is legal or not. In the 20th century, a sharp division was made between psychoactive substances on a global basis in terms of their legality for nonmedical use, with controlled drugs defined as inherently too dangerous to be made available on the legal market. Although the division is presently fraying at the edges, the global institutions which govern and enforce the controls remain in place, although which substances have ended up

on which side of the line of prohibition is hard to reconcile with the development of knowledge (Room, 2006).

With this large exception, addictive commodities have been subject in recent decades to two conflicting trends at a global level. One has been the growth and widening of public health concerns about the governance of addictive commodities. The other has been the triumph of neoliberal free-market ideology. This has often resulted in the privileging of free markets and free trade over other public values and interests. Both in the context of the European single-market, and in a wider global trade context, this has pushed against public health strategies of using relatively mild market restrictions that nudge consumers in directions favourable to their health and well-being. As a result we see a trend of greater privileging of individual over collective interests. The idea that the individual should be free to make his or her own choices in behaviour, expenditure or consumption, no matter what the effects on those around him or her, finds one manifestation in the ideology of consumer sovereignty. Though the ideology is framed in terms of preferences of the individual consumer, the main proponents and beneficiaries of the ideology's application are those supplying the addictive commodity.

For alcohol and for gambling, the result in many places of market deregulation has been substantial increases in proportions of populations which are at harmful levels of consumption. For tobacco, there has been a counter-move against the two trends in high-income countries, but rates of smoking are still rising in low- and middle-income parts of the world.

The current disarray at the international level concerning cannabis prohibition (Room, 2014) may be a signal that the division between two kinds of substances and control regimes is beginning to break down. In this circumstance, there is an urgent need to move beyond a hard-and-fast division between what is to be prohibited and what is to be made available for exploitation, promotion and sale with no substantial restrictions. A way needs to be found to move the governance of addictions to a middle way of limited and regulated markets, with commitments to individual choice and to free markets mitigated by strong attention to public health concerns.

Take home messages

There is wide divergence between addictive substances and behaviours in the extent and direction of international governance over national and local control of markets and customers.

For substances controlled by the international drug treaties, a strict prohibition regime remains in place, although fraying at the edges. Trade treaties and disputes have had no impact on this regime.

For alcohol and gambling, there is no international governance on behalf of public health or the public interest. At the global level, trade agreements and disputes have acted to weaken national and local market controls.

For tobacco, the Framework Convention on Tobacco Control expresses a weak but growing intergovernmental consensus, operating primarily by recommendation. But international trade investment agreements have been used to weaken national and local controls. EU regulation is a contrary example that might serve as a positive example…

For psychopharmaceuticals, like other medicines subject to the prescription system, there is considerable de-facto convergence of regulation, initiated by and spreading from development in the EU.

There has been a tendency toward a bifurcated international governance system, where a commodity and its use is either banned, or national or local controls on supply and promotion are swept away by the enforcement of trade and investment agreements. A way needs to be developed to move at a global level beyond such a Manichean division.

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Conflicts of interest

The authors of this chapter have no conflicts of interest to declare.

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CHAPTER 7. GOVERNMENT REGULATIONS OF THE GAMBLING MARKET: BETWEEN NANNY STATE AND LAISSEZ FAIRE?

Sarah Forberger & Gerhard Bühringer

Summary

Background: Gambling in Europe is highly regulated, with considerable differences between EU member states. Regulations and policies in the gambling market are influenced by interactions between national gambling regulations, European jurisdictions, and case law. They are based on different aims, e.g. (1) to pursue public health interests like preventing gambling disorders, consumer protection and protection of disordered gamblers, as well as, (2) to promote economic interests like tax revenues, market shares and company profits. **Aims**: We aim to analyse possible justifications for regulations in the gambling market. **Methods**: We analyses Mill's harm principle as an individual-based public health approach and the economic theory of failed markets as an example of a liberal approach. **Results**: Both examples of these opposing concepts would justify governmental interventions in the gambling market under certain specific conditions. The major, common reason for market regulation is seen in avoiding harms to others. Regulations might be justified in the cases of avoiding risk to others and to those incapable and to prevent failed markets. **Conclusions**: Underlying justifications are based on different political and philosophical concepts and lead to different solutions to strike a balance between individual freedom and governmental control. These different options, related benefits and harms, require consideration in a broader public debate and further research to lead to improved policies and regulations within the EU.

Introduction

Gambling in Europe is highly regulated, with considerable differences between EU member states (Bühringer, Braun, Kräplin, Neumann, & Sleczka, 2013; Swiss Institute of Comparative Law, 2006; European Commission, 2012; Brotherhood, Atkinson, & Sumnall, 2012). Regulations and policies in the gambling market are influenced by interactions between national gambling regulations, European jurisdictions, and case law. They are often based on different aims, e.g. (1) to pursue public health interests, such as preventing gambling disorders, consumer protection, and protection of disordered gamblers, as well as, (2) to promote economic interests like tax revenues, market shares, and company profits (Coryn, Fijnaut, & Littler, 2007; Planzer, 2014a). This variety reflects different approaches and underlying understandings of government duties with regard to gambling policies. The law surrounding gambling is influenced and shaped by conflicting philosophical, theological, social and economic beliefs and aims, resulting in different political approaches and gambling regulations (Cabot & Thompson, 1996; Kelly, 2002; Planzer, 2014b). Current approaches can be placed between two extremes: prohibition of gambling, on the one hand, and (informed) individual free choice, on the other hand. The former regards gambling as immoral or dangerous with negative impacts on and consequences for society. It defines gambling as "merit bad": as evil and bad per se (Grinols & Omorov, 1996; Walker & Barnett, 1999). This approach favours strong state regulations which ban or restrict gambling to protect the individual, society, and/or to maintain moral standards (Adams, Raeburn, & De Silva, 2009; Light, 2007; Orford, 2005). At the other end of the spectrum are those who support a liberal approach to gambling. Gambling should be seen as entertainment and

individual right. As most people gamble without any gambling-related harm, they should be allowed and able to make their own (informed) choices and, therefore, should be responsible for their own behaviour and consequences, including severe financial losses (Korn, Gibbins, & Azmier, 2003; Blaszczynski, Ladouceur, & Shaffer, 2004). Consequently, government action and modern gambling law has to be balanced between legal traditions, conflicting moral ideas, and economic interests and needs (Kelly, 2002).

This chapter presents possible options and underlying justifications for different levels of government action and regulations in the gambling market. With this overview, we aim to contribute to the understanding of different approaches for the governance of gambling and the discussion of alternative positions within European Member States. An overview of the underlying justifications for government action in the gambling market as a basis for critical discussions about national regulations is highly relevant and needed, given the rapidly increasing gambling market in Europe. In 2012 the total annual revenues in the EU (EU 27) were estimated to be around €80 billion, with a predicted increase of 7% by 2015 (Table 1). Interactive gambling (electronic access via internet, mobile phones, and interactive TV) is the fastest growing area with €9.8 billion in 2011 and an estimated annual growth rate of 45% between 2010 and 2015 (H2 Gambling Capital, 2012).

Table 1. Gambling market in Europe

EU27 online	2010	2011	2012	2015
Gross Gaming Wins, €m [7]			projection	estimate
Betting	2,904.8	3,275.0	3.564,2	4.377.1
Casinos	1,928.0	2,055.5	2.197,8	2,801.6
Poker	1,976.7	2,130.4	2.097,5	2,188.6
Bingo	793.5	914.6	981,4	1,118.9
Other/Skill Gaming	359.9	420.1	545,9	734.6
State Lotteries	946.4	1,036.3	1.165,6	1,858.2
Total	***8,909.3***	***9,831.9***	***10.552,5***	***13,079.0***
EU27 land based	**2010**	**2011**	**2012**	**2015**
Gross Gaming Wins, €m [7]			projection	estimate
Betting	8,612	8,190	7,828	7,900
Casinos	7,851	7,802	7,747	7,836
Machines (Outside Casinos)	23,807	23,273	22,983	24,229
Bingo	2,294	2,010	1,799	1,676
Lotteries	28,234	31,141	29,400	30,980
Total	***70,798.5***	***72,416.2***	***69,757.0***	***72,620.8***
GRAND TOTAL EU27	***79,707.8***	***82,248.1***	***80,309.5***	***85,699.8***

Source: H2 Gambling Capital, 2012

In the EU, most adults have an experience of gambling in their lifetime and 40% - 80% have gambled in the past 12 months (Griffiths, 2010). Considering these figures, the rate of subjects with a gambling disorder (according to ICD 10, DSM IV, DSM V) is relatively low: 0.1

[15] Spending minus winning

- 0.8% of the general adult population fulfil the criteria of a gambling disorder and an additional percentage of 0.1 – 2.2% exhibit possibly problematic gambling behaviour (Sassen et al., 2011). Despite this relatively low proportion, absolute figures are high, and a proper debate about options for gambling governance is needed to prevent disordered gambling might from leading to harm for family members, jeopardy or loss of educational and employment options, high debts, and illegal behaviour such as forgery or theft (American Psychiatric Association, 2013; Gainsbury & Blaszczynski, 2012). Gambling-related mental, social, and economic problems and crimes such as fraud, money laundering, and forms of cyber-crime are increasing (Bühringer et al., 2013; Humphreys & Soebbing, 2014; Wheeler, Round, & Wilson, 2010). It is estimated that one pathological gambler has an impact on society (social costs) of around $9,393 per year (Grinols, 2011)[16].

Altogether, gambling represents a highly complex field between industrial, governmental, and public health, as well as, societal and individual interests. Gambling providers are struggling between profit maximization and governmentally imposed consumer protection. Obviously, there is no simple, objective, or morally correct solution for these competing interests. The same is true in all areas of regulatory intervention with interplay between individual choice and market interests, like, for example, traffic or food regulations. In the case of gambling, potential conflicts are further complicated in cases where public authorities try to balance their interests as gambling providers (often within monopolies and with the role of being their own regulatory authority) and their duties to protect public health. As an overall aim, any regulation should minimize harm (e.g. fraud, mental disorders) and maximize benefits (entertainment, economic entrepreneurship, public revenues). However, as there is no predefined correct solution; any approach will consist of a package of regulations which have to be tested, continuously monitored, and optimized on the basis of these results. And, as historic evidence shows, there is no regulatory system, in practice or imaginary, which avoids all harm.

Beyond possible ways to develop socially accepted and effective solutions, it is important to examine the political and ethical rationales behind any public involvement in the gambling market in order to better understand the extreme diversity of gambling regulations in the EU. Therefore, we studied whether and, if so, to what degree, public authorities are entitled to regulate the gambling market. In the next sections we cover different types of underlying rationales to justify gambling market interventions. We analysed possible justifications for public action under the concept of public health (Mill's harm principle) and the economic theory of failed markets. These considerations should inform public and political debates given that laws and regulations are powerful tools and their implementation can have important intended and unintended positive and negative effects on individuals, society and the economy (Burris et al., 2010). The basis of the chapter is a general approach with the underlying question of whether and under which condition a state should act within its duty of care in the gambling field. The underlying approach follows arguments based on political philosophy about the range of state obligations. Therefore, the chapter follows a theoretical approach with the aim of supporting discussions on this issue.

[16] For the discussion of the definition of the concept of social costs see: Walker & Barnett, 1999; Grinols, 2011; Grinols & Omorov, 1996; McGowan, 1999; Smith & Wynne, 2000; Walker & Kelly, 2011. For the discussion of the calculation of social costs and the range between different calculations see Walker, 2007.

Definition of state, government and governmental duties

The literature about definitions of state, government and its duties is diverse and theories often overlap. Different definitions lead to different theories with regards to state functions, duties, and political strategies. The most frequently used definition was developed by Max Weber. He defined states as entities with the legitimate monopoly to use physical force within its territory (Weber, 1919). Following international approaches, states are described as legal entities recognised by international law with the following characteristics: (1) defined territory, (2) permanent population, (3) effective government, and (4) independence (the right to enter into relations with other states) (Jackson & Robert, 1982). The terms state and government are often used interchangeably. However, following international legal approaches, the concepts of state and government should be distinguished. States are juristic entities of the international legal system. Governments are the means through which the state enforces its power, administers bureaucracy, and undertakes its day-to-day work (Robinson, 2013). However, the allocation of competences and responsibilities to governments depends on the form of the governmental system and its structure[17]. Especially in states with a federal structure (like the USA and Germany), competences and responsibilities are divided and shared between a central governing authority and constituent political units at national, regional, and municipal levels (such as states, provinces or local authorities). State actions, carried out by its government, are defined through the general expectations of its citizen on state performance.

The main responsibility of a state is territorial protection against external threats, starting historically with the development of armed forces and, later, with the help of international law and diplomacy. The second function is to ensure internal security. Different theories have analysed the legal justification for state actions to secure internal security. Following system theories, to fulfil core duties, states should enforce social aims and obligatory decisions about societal values to overcome societal conflicts and to eliminate poverty (Münch, 1984; Easton, 1971; Luhmann, 2000; Wilke, 1992). Marxist theories, represented for example by Hirsch (Hirsch, 1974), argue that states need a separate political institution to secure certain preconditions of capitalism. They insist that the capitalist state can be understood only in terms of its changing function in the struggle over the organization of the labour process and the appropriation of surplus-value. Governments have to enforce ownership, secure conditions for production (infrastructure, apprenticeship), and to stabilise basic conditions for the regulation of class conflicts (Benz, 2001).

Liberal theoreticians argue that individual freedom is the benchmark for state action. They focus on the conflict between coercion and personal freedom. A life in peaceful coexistence is only possible if the individual is protected from others and from illegitimate infringements by the government. However, governments are allowed to restrict individual autonomy and liberty for a greater good[18] (Benz, 2001). In summary, the theories about governmental

[17] Forms of government: presidential (e.g. USA with federal structure), semi-presidential (e.g. France), parliamentary (e.g. Germany with federal structure), constitutional (e.g. United Kingdom), absolute (e.g. Brunei); Structures of government: federal states, unitary states.

[18] "Greater Good" is based on the philosophy of utilitarianism. Utilitarianism is commonly used as guidance for government and personal action based upon the maximization of the good: by governments for those within the society. It means the greatest good for the greatest number and will answer the practical question about "What a person ought to do?" – A person ought to act so as to produce the best consequences possible (http://www.britannica.com/EBchecked/topic/620682/utilitarianism; 11.06.2014).

rights and duties are placed on a continuum between the concept of an "omnipotent state", which determines everything, and the other extreme of a "minimal state", where only the protection of life, freedom, and property is covered. In practice, there is an ongoing discussion about whether the state's role should be to care for more than protect and to ensure the freedom of its citizens. However, no generally agreed catalogue of responsibilities exists at this point in time.

Public control and regulations in the gambling field

Mill's harm principle

In democratic states any government action, which almost invariably interferes with individual's rights, personal lifestyle decisions, and, later, produces economic costs has to be justified. Nevertheless, because of the different dimensions affected by gambling (individual, social/community, welfare state, economy), gambling regulations should not only be analysed accordingly to economic dimensions, but also under a broader public health view which considers (mental) health aspects as well. Discussions about health regulations have to be balanced between community interests and personal autonomy. They are often made under the influence of political party interests, societal traditions, and taking into account economic considerations. It is usually argued that there are circumstances where the greater good of the community justifies the overriding of personal liberty (Coker, 2006). Following current concepts (Gostin, 2007), there are three different justifications for government interventions which are derived from the public responsibility to prevent or at lease reduce the risk of harm: (1) risk to others, (2) risk to incapable[19] people, and (3) risk to oneself (Gostin & Gostin, 2009).

Risk to others

The justification for the prevention of risk to others is well-known and established. Risk to others is the standard justification and a well-accepted argument for government intervention. The idea is to protect those other than the one engaging in certain behaviour from harm. Therefore, government regulation seems to be appropriate to prevent risk and harm to others.

Risk to incapable people

The second justification – prevention of risk to incapable people – argues that government intervention is justified to protect the health and safety of those who are incapable of safeguarding their own interests (Gostin, 2007). This argument encompasses subjects who have insufficient capacities to make informed choices or to act in accordance with their desires or plans, such as children and people with mental and intellectual disabilities[20]. In such cases, the government may step in to ensure a safe and healthy life (Herr, Gostin, &

[19] While Gostin (2007) refers to incompetent people, it can be argued that the term should be broadened in this context. "Incompetent" refers to subjects who are not qualified or inadequate for or unsuited to a particular purpose and refers much more to a personal capability. Meanwhile "incapable" encompasses not only incompetence but also the lack of necessary ability, capacities or power. Therefore, incapable is a much broader term and includes also subjects with diagnosed mental disorders, non-diagnosed disability or (non-severe but existing) mental restrictions.

[20] There is a controversial discussion around if and how far subjects with a diagnosed gambling disorder are responsible for their own action or incapable because of the diagnosed mental disorder (e.g. in court cases related to the responsibility for financial losses). We decided to include subjects with a diagnosed gambling disorder, because they need special protection and support. However, further research on this issue is needed.

Koh, 2003). However, the justification for personal regulations based on incapacity does not allow states to restrict personal freedom without further purpose (Gostin, 2007). The state is obliged to act in accordance with a person's interest. This duty might be in conflict with economic interests to gain (maximise) tax revenues or market gain.

Risk to oneself

It is claimed that harm to oneself is an insufficient justification for government action. Pope states that the individual is sovereign over himself, over his own body and mind (Pope, 2000). However, following philosophers like Mill and Feinberg, state action could be justified when personal choices intervene with health, safety, or legitimate interest of other individuals (Mill, 1981; Feinberg, 1980). Therefore, the third justification for public regulation is the most controversial topic. It intervenes with personal lifestyle decisions and interests and is known as paternalism or a "nanny state". Discussions of this justification pose the question "which circumstances allows governments to restrict personal liberty for a greater good?" In this context it refers to the question where the line for state interventions should be drawn.

First and foremost, gambling could be part of a whole collection of lifestyle decisions. It falls under autonomy and personal lifestyle, free from controlling interferences by the state (Beauchamp & Childress, 2001). Individuals are self-interested and ~~to~~ know best their needs and values[21]. They are intrinsically motivated and driven by their decisions, even if they are unhealthy ones. Consequently, governments should allow individuals to make their own decisions and to respect their autonomy of will. Coercion undermines the dignity of individuals. Liberal scholars argue that "as long as individuals understand the hazards involved, they should be free to engage in risky activity that provides them with personal satisfaction" (Rabin & Sugarman, 1993; Gert, Culver, & Danner Clouser, 1997).

Following liberal theory, governments should "remain neutral" (Gostin, 2007). A government's duties are to guarantee freedom of lifestyle choices and of economic chances. However, in this context Glendon is often citied: *"This way of thinking and speaking [the right to take risks] ignores the fact that it is a rare driver, passenger, or biker [or smoker] who does not have a child, or a spouse, or a parent. It glosses over the likelihood that if the rights-bearer comes to grief, the cost of his medical treatment, or rehabilitation, or long-term care will spread among many others. The independent individual, helmetless and free on the open road, becomes the most dependent of individuals in the spinal injury ward*" (Glendon, 1991). Classical regulations of individual behaviour, such as mandatory motorcycle helmet and seatbelt laws, are examples for government intervention. Gambling regulations belong to this category. Similarly to taxes on cigarettes and alcoholic beverages, taxes on gambling revenues can be claimed to have a paternalistic note because of their interferences with market incentives. "Paternalism is the intentional interference with a person's freedom of action exclusively, or primarily, to protect the health, safety, welfare and happiness, or other interests or values of the person subject to coercion" (Gostin, 2007). The state overrides personal lifestyle decisions and interests to prevent harm but also, sometimes, to secure its own interests.

However, individual decisions are rarely a matter of free will and based on all available information. Some individuals do not have the capacity to understand complex (scientific) information, to judge, and to decide based on full information. Furthermore, if all

[21] We assume that the individual is self-determined and interest driven. However, we know that this can be questioned and that there is an ethical debate about self- determination and heteronomy.

information was available, consumers might underestimate or misinterpret the risks (Gostin, 2007). Therefore, government regulation based on informed decisions might be seen as appropriate to protect individuals and society from harm. Beauchamp notes that "public health practices are communal in nature, and concerned with the well-being of the community as a whole and not just the well-being of any particular person. Policy, and here public health paternalism, operates at the level of practice and not at the level of individual behaviour" (Beauchamp 1999). While the risk to oneself is often the least accepted reason for regulation, the fact cannot be ignored that paternalistic policies can be highly effective in preventing injuries and deaths (Gostin 2007).

The natural outcome of these discussions would be the realisation that gambling is a personal decision. As long as all negative consequences are concentrated on the part of the gambling individual and third party members are not affected, government intervention would not be justified. However, disordered gamblers accumulate harm and costs which do affect third party members. Also, costs associated with gambling related crimes are accrued on the part of the community. In economic theory, this is termed *external effect*. External effects, especially negative external effects, are costs at the expense of third parties. For gambling consequences, these costs include treatment costs, social system costs, drug-related crime costs, over-indebtedness and poverty costs, and money laundering (Recker, 2013). With the help of economic theory, it might be possible to justify state intervention; especially if liberal arguments apart from the above public-health based protection argumentation are followed. Liberalism demands personal autonomy and reduces the function of the state to that of guaranteeing free market economy. However, if the market fails to self-regulate, state intervention can be justified.

Economic theory of failed markets

Economic theory is based on market analyses and the assumption that market criteria and its consequences for regulations are the basis for problem solving. In this conceptualisation, the governmental duty is to guarantee free market processes and to ensure that market mechanisms are superior to governmental action (Musgrave, Musgrave, & Kullmer, 1994; Swiss Institute of Comparative Law, 2006). Consequently, governmental action is only legitimated and justified in case of market failure to avoid undesirable market structures, such as monopolies or oligopolies (Musgrave et al., 1994; Swiss Institute of Comparative Law, 2006).

This argumentation allows government intervention in cases other than mental health risks. There are four recognised categories of market failure: (1) a natural monopoly, (2) public goods, (3) external effects and (4) asymmetric information of market participants. Natural monopoly and public goods (types 1 and 2) can be neglected a priori because gambling is neither based on a natural monopoly nor can be seen as a public good.

(1) Natural monopoly

A natural monopoly is a situation in an industrial area in which it is most efficient (involving the lowest average long-term costs) for production to be concentrated in a single firm. This market situation gives the largest industrial supplier, often the first supplier in a market, an overwhelming cost advantage over other actual and potential competitors. However, in the case of gambling, because of existing market structures, different products, and the distribution structures of gambling products, concentration of the market in a single supplier is not very likely. Additionally, with the different entryways, the Internet and the theoretical possibility of using existing sales networks via cooperation between companies, the development of a natural monopoly in the gambling market can be rejected as potential cause for market failure (Roth 2013).

(2) Public Goods

Gambling is not a public good. Public goods are unlikely to be produced and exchanged in a market because of the special characteristics of the goods themselves. The benefits of these goods are such that it is not feasible to exclude some from experiencing them. Once they are produced, anyone can enjoy them; there is no practical way to exclude people who have not paid for them from consuming them. Also, the marginal cost of adding one more consumer is zero (Rittenberg & Tregarthen). For example, air is a public good. It is not possible to exclude people who have not paid. National defence, knowledge, lighthouses, flood control systems, and street lighting are all examples of public goods. Most public goods are provided directly by the government or by private firms under contract with government agencies (for example public park maintenance offered by private companies and contracted by the government). As the use of products of the gambling industry requires a prior payment and as it is easy to exclude every person who has not paid, gambling is not a public good and this category can also be rejected a priori.

(3) External Effects

External effects are costs accrued by gambling activities that affect the community[22]. These costs are crime costs, business and employment costs, bankruptcy, suicide, illness-related costs, social service cost, direct regulatory cost, family costs, and money acquired by the gambler from others under false pretences (Grinols, 2011). In general, treatment, health and social costs are not covered by the gambler him/herself, but by the welfare-system and the community. Additionally, gambling-related crimes like fraud or internet crime induce suffering for uninvolved third party members. If there are external costs accumulated on the parts of third party, government regulations could be justified to protect third party members.

(4) Asymmetric information

A further possible but critical justification for government intervention is asymmetric information among market participants. For example, the consumer has to trust that the winning numbers are correctly drawn in lottery systems or the pay-out ratio of slot machines. However, not every asymmetric information system requires market regulation. Only in cases of systematic information imbalance which cannot be overcome by commercial information systems can government intervention be justified.

Altogether, even when following a liberalist approach that assumes free markets are capable of solving gambling related problems, government intervention may be justified when external costs are accumulated on third party side and asymmetric information cannot be overcome.

Discussion

We studied underlying rationales for public regulations of the gambling market, with a focus on the public health view and the theory of failed markets. The public health view would justify market regulation to avoid (1) risks for others (2) risks for incapable subjects and, however controversial, (3) risk for oneself. The theory of failed markets allows regulations in case of market failures which are characterised by (1) natural monopolies, (2) public goods

[22] With regard to gambling we are focusing on negative external costs like fraud and harm. Positive external costs are commonly known as free riding; where companies, interest groups and market participants use the positive effects without paying in the costs.

(neither of which are applicable in the case of gambling), (3) negative external costs, and (4) situations with asymmetric information of market participants.

There is no international or European agreement on the assignment of duties and responsibilities to the public sector or to individual citizens (Ellwein & Hesse, 1994; Buchanan & Tullock, 1962). There is also no public or political debate on these issues in relation to public regulations for the gambling market. Consequently, decisions about gambling regulations are mostly based on implicit and explicit sociological and economic beliefs and interests, traditional philosophical underpinnings, and economic incentives. In addition, in most cases these decisions are negotiated behind closed doors and are not the subject of public debate. To approach these various underpinnings, we used Mill's harm principle (a public health approach) and the theory of failed markets (a liberal approach). According to the public health approach, government action is justified if the behaviour of one causes harm to others or if an individual is incapable of making informed choices or acting in accordance with his/her desires or plans. Following this line of argument, governments might step in to protect adolescents or incapable people. Minimum age regulations are easy to agree on because an early onset of participation in gambling is associated with later gambling problems (Rahman et al., 2012; Volberg, Gupta, Griffiths, Olason, & Delfabbro, 2010). Additionally, executive brain functions are developing throughout adolescence and might be adversely affected by uncontrolled and excessive gambling behaviour (Somerville & Casey, 2010). However, while some authors argue that a minimum age restriction of 18 might be too low to protect adolescents effectively (Gainsbury, Blankers, Wilkinson, Schelleman-Offermans, & Cousijn, 2013; Steinberg, 2008), others do not find any association between disordered gambling and policies governing minimum age for land-based gambling (Planzer, Gray, & Shaffer, 2014). This is an example of an area in need of further research, given that political decisions should be based as far as possible on robust scientific evidence.

To prevent harm in subjects with risky gambling behaviour or a gambling disorder, regulations for a safe gambling environments, prevention and treatment programmes would be helpful (Humphreys & Soebbing, 2014). Additionally, the self or provider based exclusion, the implementation of loss and win limits, and other responsible gambling regulations could be good starting points to prevent harm (Walker, Litvin, Sobel, & St-Pierre, 2014). However, at the moment, there is no evidence that the prohibition of specific games like online poker is associated with less gambling-related harm or a reduction of pathology prevalence figures (Planzer et al., 2014). Therefore, it is surprising that governments have opted to prohibit playing online games which present a high likelihood of developing into a problematic gambling behaviour or gambling disorder (Sassen et al., 2011), especially, given that enforcement of these regulations is so difficult and gamblers simply tend to sidestep regulations or shift to using black market internet service providers . Normally, these black market providers offer no player protection and no security measures against (cyber) crime, which could eventually increase the negative effects for the user and society.

However, public regulations to protect adults are questionable, as gambling can be seen as personal lifestyle decision, even if gambling is associated with a certain risk. Any regulation would interfere with personal autonomy and liberty and as long as no other person is involved and all consequences are accumulated on the side of the gambling person, governmental regulation is not legitimized. However, if costs are accumulated on third party side or society, governmental intervention is justified in order to prevent others from harm. This differentiation has to be drawn but is not easy to derive in theory and practice.

Besides the public health view and the individual-based protective approach, government regulation of the gambling market can be considered under the argumentation of failed markets. Liberal theorists argue that free markets are the best way to handle gambling-related issues and no government interventions should be used. However, if the market fails, government regulation can be justified. Within the gambling market external costs and asymmetric information systems can be found, both of which indicate a failed market system. External costs are accrued by third parties and if asymmetric information systems cannot be overcome by market regulations, governmental action can be justified to change these structures. Therefore, under this liberal theorisation, moderate regulation of the market can be seen as helpful to prevent harm and to reduce costs.

At the court of the European Free Trade Association (EFTA) it was argued that it is inappropriate for private persons to profit from the mental health conditions of subjects with a gambling disorder. However, this argumentation was made by states to secure their gambling monopoly (36E-3/06 Ladbrokes Ltd. v. the Government of Norway et al., 2007). The question remains whether public authorities with their own (economic) interests (tax revenues) are better in preventing gambling-related harm than regulated or controlled (commercial) third parties. And, where a state monopoly exists, if an independent gambling control agency for public authorities should not be installed to guarantee consumer protection and prevention of gambling-related harm against economic interests of the state (Martin, 2007).

Besides the public health view and the liberal approach, states have the chance to alter norms and create values and, through these, make it easier for individuals to make healthier choices[23]. The family, peers, community, as well as media and advertising play a role in this. However, these regulations would rarely be categorized as paternalistic. More often they are justified as relevant to protect against harm (Gostin 2007)[24].

Associations between restriction on advertising online games and low rates of sub-clinical gambling symptoms (level 2[25]) have been found (Planzer et al. 2014). However, no such association has been found with advertising regulation of land-based games, indicating a lack of research in this field (Planzer & Wardle, 2011). Additionally, research on the alteration of norms, transmission of ideas and changes of societal beliefs with respect to gambling is needed, as well as on the impact of different license systems on gambling prevalence figures (Planzer et al., 2014); and the role of different law enforcement systems, regulations, and public policy approaches in regard to implementation (transposition and enforcement) and application (effectiveness and efficiency) of regulations.

To sum up, gambling, like smoking, alcohol consumption and other individually motivated behaviours with high reinforcement properties, is a lifestyle decision. Millions of subjects make such decisions in millions of situations. However, individual decisions to participate in

[23] For example, please see the shift of social norms about tobacco (Institute of Medicine, 1994; Thomson, Siegel, Winickoff, Biener, & Rigotti, 2005).

[24] There is an open discussion around whether it should be allowed to „nudge“ people to follow favoured decisions (Sugden, 2009; Thaler & Sunstein, 2008; Wells, 2010).

[25] Level 1: respondents who do not experience gambling problems. This group includes both “non-problem” gamblers and non-gamblers; level 2: gamblers with sub-clinical levels of gambling problems (e.g., “problem,” “at-risk,” “in transition,” “potential pathological”); level 3: most severe category of disordered gambling (e.g., “pathological”). In many studies, level 3 gamblers are those who meet established diagnostic criteria for pathological gambling (e.g., DSM-IV criteria) (Shaffer et al. 1999; Shaffer et al. 2001, Planzer et al. 2014).

gambling activities could lead to individual and collective costs. Still the question remains: who is responsible, when and why? Individual liberty and government intervention exist in a sensitive equilibrium and every decision should be carefully balanced within this continuum.

Despite deficits, gambling markets are able to perform well. However, market failure per se does not legitimate state action. Advantages and disadvantages have to be balanced against each other (Buchanan & Tullock, 1962; Mill, 1981). Additionally, arguments for a reduction of "economic burden" alone does not justify government regulation (Bayer & Fairchild, 2004; Gostin & Gostin, 2009). The first rationale should be the avoidance of human suffering and to balance interests (Gostin & Gostin, 2009). All in all, the level of public action and regulation of the gambling sector, its principles, aims, and control mechanisms should be the subject of much more public debate, and the probable impacts of possible options needs to be better researched and understood. Within this debate, it is also necessary to define additional state action from a public health view and to discuss these along with the debate of state duties. Examples are the protection of the population from inadequate advertising and promotion of gambling opportunities or of risks derived from inequalities like income and gender.

Take home messages

- Different political and philosophical arguments lead to different approaches in public interventions to regulate the gambling market.
- Any intervention in the gambling market has to maintain a sensitive equilibrium between restrictions and personal liberty. Every policy decision should be well balanced within this continuum.
- Regulations of the gambling market to avoid risks for minors and those incapable of safeguarding their own interests are justified.
- Regulations of the gambling market to avoid risk for adults are only justified if their behaviour poses a risk to third party members (e.g. social costs for treatment, fraud).
- Nevertheless, decisions about public regulations of the gambling market are still part of the twilight zone of governmental work and, therefore, need to be the subject of an on-going public debate and accompanying research.

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CHAPTER 8. DEALING WITH COCAINE AND HEROIN IN ITALY: BUSINESS STRATEGIES AND OPERATIONS

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Summary

In order to devise evidence-informed strategies for suppressing heroin and cocaine distribution and sales in Europe, it is important to know how this distribution works in practice, including the incentives and constraints of those involved. This chapter considers how drug[26] dealers develop their business activity, the motivations of and limitations on those profiting from the trade in cocaine and heroin in Italy. In order to do so, we focus on existing studies and primary interviews with those involved in the drug trade. The focus is on both business strategies and the revenues and profits generated by the trade.

Introduction

Prior research has used theoretical models to analyse the effect of supply containment policies on markets for illicit drugs (Costa Storti & de Grauwe, 2009). Whilst these theoretical models are helpful, it is important for those working in criminal justice systems and health services to also understand how the sale of cocaine and heroin works from dealers' perspectives, and the ways in which drug dealers operate to earn money. In order to achieve this, we have interviewed imprisoned drug dealers in Italy (convicted of drug dealing or trafficking offenses). The focus of these discussions was dealers' experiences in drug dealing, particularly the costs of doing business and the amount of money earned, as well as how they handle customers, competitors and pressures from the police. This analysis is part of a broader study interviewing convicted dealers in three European countries (Italy, Slovenia, and Germany).[27]

There is limited evidence on the extent to which policies actually affect decisions taken by drug dealers and traffickers, and on the amount of profit dealers actually earn across Member States of the EU (Caulkins, Burnett, & Leslie, 2009; Matrix Knowledge Group, 2007). The present chapter presents the findings from interviews with a sample of Italian drug dealers. We explore dealers' business strategies regarding supply of drugs, treatment of customers, prices, quality and how dealers respond to various pressures of the drug market. The first section will provide a detailed overview of the research methodology. The key results of the study are then presented. Finally, the chapter concludes with a discussion of the main findings and some implications for policy in this field.

Methods

This study draws on interviews with imprisoned drug dealers in Italy. The following sub-sections outline the research methodology and its limitations, as well as the steps taken to undertake the interviews.

[26] In this chapter the term 'drugs' is used to refer to illicit drugs, unless otherwise specified.

27 Please see Tzvetkova, M., Pardal, M. et al. (2014). *Drug dealers' careers, behaviours and strategies – in their own words. A study of imprisoned drug dealers in Italy, Slovenia and Germany (RR-826-EC).*

Number of interviews and sample limitations

A total of 72 interviews were conducted in five Italian prisons from September 2012 to January 2013 (Table 1). In order to target individuals that could offer insightful information into dealers' business strategies, profits and revenues, the research team employed purposive sampling (Bryman, 2012). Interviewees were not selected on a random basis, but, rather, following a strategic approach, taking into account a number of criteria which related to the research goals of the study. These criteria are presented in more detail in the next sub-section.

The study sample (N=72) is small, particularly when divided across levels of supply chain[28] and across drug types. Furthermore, the sample included only imprisoned drug dealers and thus the study results should not be extended to the wider population of drug dealers.[29] The imprisoned drug dealers volunteered to participate in the interviews, thus self-selection bias may have occurred.

Table 1: Distribution of interviews per prison

Prisons	Interviews	Italian nationals	Other nationalities
Prison 1	15	12	3
Prison 2	14	10	4
Prison 3	11	8	3
Prison 4	14	11	3
Prison 5	18	11	7
Total	**72**	**52**	**20**

Inclusion criteria

Given the peculiar characteristics of the drugs market in Italy, which includes strong connections with local organised crime (Dorn et al. 2005), two main criteria were applied in the selection of the prisons:

1) Their geographical position within metropolitan areas characterized by high rates of drug-related crime; and

2) Their concentration of relevant prisoners, to have a significant sample of prisoners convicted for drug related offences[30].

[28] In the context of this study we considered both high and low quantity dealers. These two categories are further described in the next sections.

[29] In fact, convicted drug dealers are a peculiar subset of the wider population of drug dealers in that they were unsuccessful in avoiding detention.

[30] The identification of relevant prisons (i.e., in accordance with the selection criteria outlined above), for the implementation of the interviews was based on an in depth analysis of relevant data on the Italian drug market, presented by the Italian Home Office in the "2011 Anti-Narcotics Report". The analysis included data on the number of anti-narcotics police operations and drug seizures within the Italian territory; the amount of seized drug; the regional distribution of subjects reported to the judicial authorities for drug related offences and all the above data in relation to the number of inhabitants per region.

According to the research protocol, only prisoners with the following characteristics were to participate in the interviews:

1. Convicted for at least one drug-related offence, as regulated in articles 73 and 74 of the Decree of the President of the Republic 309/90[31], respectively regulating crimes involving the illicit production, trafficking and detention of drugs (article 73) and criminal association for drug trafficking (article 74) among street level dealers, high level dealers and producers;
2. Enough fluency in the Italian language to be able to understand interview questions and articulate interview responses;
3. No known physical and/or relevant psychiatric disorder which could impede or interfere with the conduct of the interview.

Process to identify interviewees

Once authorizations to conduct the interviews were obtained, appointments with the five selected prison administrations were scheduled in order to develop relationships and processes as well as gather information that would maximize efficiency and effectiveness in the initial prisoner sampling. Each prison administration was requested to identify an initial sample of 30 inmates who adhered to the above characteristics and could be approached about the interviews. Administrations were told that the research team sought to complete at least 14 interviews per prison. The research team also asked that the initial sample suggestions from the prisons include a mix of those who were Italian and those of other nationalities. Non-Italian convicted drug dealers are slightly underrepresented in the study sample. While available data on the general prison population in Italy indicates that 35% of the prison population is from other nationalities, in the study sample this group corresponds to 27.7% of the total sample population.[32]

Prison personnel, including educators, were actively involved in the sampling process because of their familiarity with the inmates' backgrounds and personalities. This was particularly important to facilitate the identification of inmates who met the inclusion criteria listed above, and to minimise last minute interview drop-outs. Prison educators had a crucial role in approaching the selected prisoners, once they agreed to participate in the study, to inform them of the research subject matter and objectives, discuss privacy issues and to obtain informed consent. Prison educators also acted as facilitators between the prisoners and the interviewers in their first contact.

A team of four drug addiction professionals, including three psychologists, conducted the interviews. All interviewers underwent a brief training in which interviews were simulated with experienced drug addiction professionals, to cope with any challenges that might arise during the interview. This training also helped to minimise any manipulative behaviours on

[31] The Decree of the President of the Republic 309/90 is available on the website of the Italian Home Office at:
http://www.interno.gov.it/mininterno/export/sites/default/it/assets/files/13/Legge_309_90.pdf (last accessed 7 August 2014)

[32] Data on prison population updated as of 31 August 2012, available on the website of the Italian Ministry of Justice at:
http://www.giustizia.it/giustizia/it/mg_1_14_1.wp?previsiousPage=mg_1_14&contentId=SST767945 (last accessed 5 August 2014)

the part of the detainees, especially those in high security wards, which could affect the reliability of the interview results. Throughout the organisation and the administration of the interviews, the research team and the interviewers carefully reviewed and ensured the application of the most rigorous ethical standards, especially with regard to the protection of the privacy and safety of the prisoners who agreed to be interviewed. Before the interviews an outline explaining the purpose of the research study was shared with interviewees, doubts or concerns expressed by interviewees were addressed and clarified, and the confidentiality protocol was discussed. An informed consent form was also read and signed by the participating prisoners.

Each interview was conducted by two interviewers, and interviews lasted between one and four hours with an average duration of one hour and thirty minutes. Interviews were conducted in areas of the prison which had non-acoustic surveillance but which were private to the extent that other prisoners and staff could not walk through, in order to avoid unexpected interruption and to protect confidentiality. Prison officers were not present during the interviews.

Prison officers involved in the prisoners' initial sampling were explicitly requested not to disclose the names of the selected prisoners to the interviewers, to help in protecting confidentiality. In order to minimise the risk of harm to inmates who participated, participants' names, offences, attributes and birthdates were not recorded.

Since audio-recording of the interviews was not authorised by the Department for Prison Administration, one interviewer was responsible for conducting the interview and another was responsible for making detailed notes of the interviewees' responses – as close to verbatim transcription as possible. No names were included in the transcripts.

Results

The following sections present the key findings of the study based on the interviews with imprisoned drug dealers in Italy. The research questions informing the interviews included:

- How difficult is it to enter into a drug market?
- How easy is it to adapt to changes in the market?
- What happens when dealers are out of stock or over stocked?
- What does the organisational/reporting structure look like?
- How concerned are dealers with risks from law enforcement and competitors?
- How much profit is earned?

This section considers the drugs sold by interviewees as reported in the interviews, the profile of the dealers themselves, the motivations and history of involvement with drug-taking of those interviewed.

Age and nationality

At the time of the interviews the average age of respondents (when known) was 42 years old (62.5%, N=25 are between 22 and 45)[33]. The youngest respondent for whom the exact age was known was 22 and the oldest prisoner was 76 years old. The average age of first involvement with drug dealing was reported to be 25.

[33] 32 interviewees (44.4%) did not provide information about their age.

Table 2 shows the distribution of prisoners according to their nationality (defined as country of birth). This distribution indicates that just over 70% were Italian, which represents a slight over-sampling of interviewees from this group, compared to the target of 65%.

Table 2. Nationality of respondents based on country of birth data.

Nationality	N	%
Italian	52	72,2
Albanian/Eastern European	5	6,9
North African	5	6,9
Other African	4	5,6
Other European	3	4,2
Latin American	2	2,8
Asian	1	1,4
Total	**72**	**100**

Why dealers became involved in dealing

29 dealers (40.2%) mentioned economic reasons when they discussed their reasons for involvement in drug dealing,[34] and 14 (19.4%) reported becoming involved in dealing in order to earn enough money to support their own consumption. 31 dealers (43%) became involved through friends and family members.[35] Those of Italian nationality spoke of their entry to dealing being facilitated by friends and acquaintances in their own neighbourhoods – people they had known for years who used drugs and aided their entry into the business. Foreign (non-Italian) interviewees who said that friends and acquaintances had helped them to start dealing usually indicated involvement through their diaspora networks, which they initially used for other purposes (such as to find housing, jobs etc.). A few non-Italian interviewees reported moving to Italy especially to sell drugs, as in their perspective this could be a profitable business and it had already been organised by people they knew back in their home countries. All dealers who reported starting to use drugs and subsequently becoming involved in dealing also reported that they became involved through friends and acquaintances.

Drugs sold

About half of the drug dealers (51%, N=27), for whom data on sentence and imprisonment was available (N=52), entered prison between 2008 and 2010, 25% (N=13) between 2011 and 2012 and 21% (N=11) between 2003 and 2007. 45 dealers (62.5 %) reported cocaine as their main drug (for dealing) and 21 (29.2%) reported that they sold mainly heroin. Five other dealers (6.9%) sold hashish, cannabis and amphetamines[36]. 49 interviewees (68%) reported not selling other drugs apart from their main drug.

[34] Six dealers (from the 29 who mentioned economic reasons) referred also to friends to explain their involvement in drug dealing.
[35] Six dealers (from the 31 who mentioned friends and family members) indicated also economic reasons to explain their involvement in drug dealing.
[36] One interviewee (1.4%) did not respond to this question.

Interviewees were asked about the first drug they ever sold and the drug which related to their present drug sentence. As presented in Table 3, interviewees' responses indicate some variation between the first drug sold and the current drug sentence. For example, while 23.6% of interviewees (N=17) reported having initially sold heroin, the percentage of interviewees currently sentenced for dealing this substance is approximately 15.3% (N=11).

Table 3. Respondents' drug for which sentenced and first drug they sold

	Cocaine	Heroin	Cocaine and heroin	Cannabis and hashish
First drug sold	37 (51.4%)	17 (23.6%)	-	15 (20.8%)
Present drug sentence	43 (59.7%)	11 (15.3%)	9 (12.5%)	8 (11.1%)

High quantity dealers and low quantity dealers in the sample

While prior research has developed a range of typologies of drug dealers (according to their role and tasks, the market level or the organisational structure of the group), there is no apparent consensus among researchers around one particular overarching classificatory framework (Desroches, 2007). For the purposes of the present study, we devised two categories of dealers, as follows:

- 'High quantity dealer': any dealer who bought a total (per month) of 10 kgs or more to sell
- 'Low quantity dealer': any dealer who bought a total (per month) of less than 10kgs to sell

Using this definition, 25% (N=18) of the interviewees were high quantity dealers and 72.2% (N=52) were low quantity dealers[37]. The majority of the high quantity dealers (N=14) reported not selling on the streets. From the total sample, 61.1% (N=44) reported being involved in street dealing.

Independent dealers and working together

Among the dealers in the sample who discussed the reporting structure in selling their main drug (N=58), it is possible to distinguish between independent dealers (58.6%, N=34) and dealers who worked as part of organisations and groups (41.3%, N=24)[38]. This division is based on whether or not dealers reported that they decided themselves on prices and locations, or whether they worked together with other dealers (interviewees were not asked directly if they were part of an organised group). However, even independent dealers reported some kind of collaboration with colleagues on different occasions, such as when supply was low or to exchange information on police operations. Across the whole sample, 28 interviewees (38.8%) said they would work together with other dealers and 11 dealers (15.3%) discussed drug dealing as part of organised criminal networks in the South of Italy.

Dealing as a main occupation and other criminal activity

The majority of the interviewees (N=71) discussed whether dealing was their main occupation. Among these, 43 respondents (59.7%) considered dealing as their main

[37] Two other interviewees (2.8%) did not provide sufficient information to apply this classification.
[38] The reporting structure of 14 dealers (19.4%) in the sample is not known/sufficient information was not provided.

occupation and for 36 (out of those 43) dealing was in fact their only occupation. Other occupations reported by dealers included: owning a shop, engaging in various types of non-skilled work, working in night clubs, restaurants and factories; driving and working in construction/highway maintenance. There were only a few skilled professionals in the sample. About 5.5% of the interviewees (N=4) reported having been involved in other crimes in the past, such as robberies and theft.

Use of drugs

While the questionnaire used in the interviews did not include any questions about drug addiction, 69 (95.8%) interviewees volunteered information relevant to understanding their drug consumption. Addiction has been determined in this study on the basis of how addicts described their own use and whether or not they have spent time in rehabilitation. Accordingly, 18 (25%) dealers could be described as addicts (present or former). Of those whom the research team classified as addicted, 9 (50%) were heroin users and 9 (50%) were cocaine users.

Furthermore, while 35 (48.6%) dealers reported using cocaine regularly (often) or occasionally (only during the weekend), only 13 (18.1%) admitted to using heroin regularly. 15 dealers (20.8%) did not use any drugs and 5 (7%) used only hashish or cannabis (no addicts among them)[39]. It is worth noting that the biggest group of dealers in this sample sold cocaine and used mainly cocaine.

Demand and supply of drugs

The results from the interviews suggest that the demand for drugs during the period in which the majority of dealers operated (2003-2012) was stable. Many interviewees had regular customers, did not experience difficulties selling what they bought to sell, and did not lose customers after periods in which they did not have supply or periods during which they did not work for other reasons.

On the supply side, 51 respondents (70.8%) indicated that they had more than one supplier.[40] Most dealers reported having regular suppliers and many reported that they had back-up suppliers who they used as second choice, for example when their regular supplier did not have supply, was not around, or when their main supplier was in prison or on holiday.

The majority of dealers did not experience any difficulties selling the drugs they bought (69.4%, N=50 said that they usually sold what they bought quickly).[41] Oversupply appeared not to be an issue of concern for some dealers either (N=13), even if storage could be a problem at times (N=3). Others (N=3) reported collaboration with fellow dealers in cases of oversupply; yet others would buy more than they thought they would need and store certain quantities if the drug was of exceptional quality (N=3), if they had spare cash or if they envisaged a future period of low supply (N=2).

There was a great deal of variability reported in the frequency with which respondents received new supplies. The average frequency across all respondents was four to five times

[39] One other interviewee reported not having a main drug (of consumption).
[40] 18 interviewees (25%) reported having one supplier only, and data is missing in relation to three respondents (4.2%).
[41] Eight respondents (11.1%) reported difficulties in selling the drugs they had bought. One other interviewee's response was not clear (1.4%). 13 dealers did not respond (18.1%).

per month. However, while some dealers reported receiving supply every few days ("*Every 3 days I would buy ½ kg of cocaine from a wholesaler" (I13)*), others would arrange for supply once a month or once every two months. Frequency and quantity of supply depended on the level at which dealing was organised. One interviewee provided an overview of the determinants of supply, as follows:

> *"There's no time limit, it depends on the quantity and on where it is coming from. The system is very vast. There are people who can get a supply once a week and people support each other. If there's a seizure or a police operation, then the amount available decreases and the prices go up. At times two or three shipments would arrive all at once. It also depended on many variables…" (I36).*

The supplying arrangements would differ too: the respondents were split equally across those who reported calling their supplier regularly, others who have fixed meetings/deliveries and yet others who would approach suppliers when they needed more supplies, including turning up at the supplier's place of residence. For example, one of the interviewees offered offered the following information:

> *"You can go straight to your supplier's home, without fixing a time. When there's trust you don't even need to pay immediately, you are allowed to pay only once you manage to sell the stuff" (I20).*

There were short periods during which dealers did not work because of lack of supply (75%, N=54 dealers reported interruptions because of lack of supply). Most respondents reported that they rarely experienced long shortages (we calculated 14 days, on average, as the longest period ever reported by dealers without receiving a supply)[42]. We did not specifically ask about other breaks from dealing and only have information about some dealers: Some would take vacations during periods when supply was low, switch off their phones and leave the city where they usually worked (N=4). Others would say to customers that they were waiting for a new supply or would refer customers to other dealers they knew well (N=7). Very few reported losing customers after periods of low supply and interruption of their activity (11%, N=8). The majority (68.1%, N=49) reported that their customers would return to them even after a period when they did not have any drugs to sell. One explanation for this apparent loyalty is that the periods of lack of supply were very short. Another could be that most dealers claimed to have regular customers, or at least a number of regular customers. We found that the quality of the supply and the established trust and familiarity appear to be very important in the retention of customers - these themes are discussed further in this chapter.

Profits from dealing

Based on a literature review of Italian sources by Dorn et al. (2005), financial gain for personal enrichment corresponds to a key "immediate priority" for most drug dealers in Italy (ibid., p. 11). One of the objectives of our study was to learn more about the profits that drug dealers reported generating from this occupation. Profit is herein defined as sales revenue minus costs of goods sold[43]. In order to obtain sufficient information allowing for an estimation of profits, interviewees were asked about the following:

[42] This was calculated using the *maximum* number of days without supply reported by each dealer, and thus the real average number of days without supply would be smaller.

[43] Costs relevant to dealing drugs (for instance, petrol, cell phone bills, wages of any support staff) were considered as well, when such information was made available by the interviewees.

- the price typically paid for a particular amount of drugs;
- the minimum and the maximum paid (for the typical amount they bought);
- earnings per hour for trafficking/selling/or per unit drug sold;
- costs relevant to dealing drugs;
- typical weight sold to one buyer and the price of that weight.

The majority discussed the prices at which they bought (N=45 interviewees discussed prices per kilogram and N=39 – per gram). The minimum and the maximum amounts paid were discussed by 42 (58%) and 43 (59.7%) interviewees respectively. Some 64 interviewees (88.8%) discussed the prices at which they sold to customers (N=41 interviewees gave prices per gram and N=22 – price per kilogram). Only half (48.6%, N=35) discussed their costs.

There are several issues in relation to the data generated by the interviews which hamper an estimate of profit and of dealers' earnings:

- Limited information on costs, which is difficult to compare across different levels of dealing;
- Difficulties in comparing the profits and costs of independent dealers versus those of dealers who worked as part of an organisation. For example, one dealer who worked in the South of Italy for a criminal organisation told us*: "I decided the quantity, the price was agreed with the System. In my area I could decide whether buy the stuff from the System or not. In other areas you have no choice"(I17)*;
- Variation in drug prices: prices vary over time, across locations, and between market levels (also from transaction to transaction);
- Limited information regarding the purity of sold drugs;
- Difficulties in calculating hidden costs (e.g. payment to corrupt law enforcement officials, payments for a common pool to help imprisoned colleagues etc.).

In an effort to estimate profits of individual dealers in Italy, Table 4 below shows the average quantities of cocaine and heroin bought and sold and the mean prices in Euro.

Table 4. Prices of cocaine and* heroin *in Italy (2003-2011), according to imprisoned drug dealers

	Bought per month (in Kg)	Price per kg bought (in Euro)	Price per gram bought (in Euro)	Sale price per Kg (cut) (in Euro)	Sale price per gram (in Euro)	Costs per month (in Euro)
Cocaine (mean)	11kg	27,400€	42€	46,400€	70€	10,945€
Heroin (mean)	6.6kg	18,900€	25€	41,300€	72€	6,660€

The dealers in our sample suggested that, generally, if you paid 50,000€, you could make 100,000€ (I39). Based on the very diverse responses with regard to dilution, dilution 1 to 3, while common in a chain, is rare within the operations of a single individual.[44] Analysis by Caulkins et al. (1998) found that entrepreneurs (running their own organisation), on

[44] According to Caulkins (2005), "typically cocaine [distributed in the U.S.] undergoes something like 5 transactions between its import in multi-kilo to multi-hundred kilo lots and its retail sale in units of 0.1 gram to a few grams" (p. 9).

average, received higher profits. The authors distinguished four levels of involvement and related profits: entrepreneurs who own the drugs (retain 50% of the shares), independent consignment sellers (retain about 25% of the shares), consignment sellers who operate at fixed locations (retain 10% of the shares) and sellers paid hourly (3% of the shares). The small number of high quantity dealers in our sample and the large variability among them does not allow for meaningful estimates of their profits per month.

Table 5 below shows the prices at which dealers of various levels in the sample bought and sold cocaine and heroin. The table also includes an estimation of dealers' costs. The estimation of costs is not precise due to the incomplete information received.[45] A study of drug dealers in the UK suggested that "dealers' profits primarily came through revenue generation (sales) rather than cost control" (Matrix Knowledge Group, 2007, p. 40). In fact, according to this study, only a small minority of dealers in the UK had precise knowledge of their costs. The Matrix study thus concluded that "dealers generally did not require this knowledge as the revenues were so large and the operational costs and unskilled staff wages were small" (Matrix Knowledge Group, 2007, p. 40).

Table 5. Average amounts purchased and prices of heroin and cocaine (according to Italian dealers)

	Bought per purchase (gram/Kg)	Bought on average per month (in Kg)	Price at which bought per Kg (in Euro)	Price at which bought per gram (in Euro)
Cocaine sellers less than 10kg (N=34)	800g	1.6kg	---	43 (n=24)
Cocaine sellers 10kg and more (N=10)	11kg	44kg (median=16kg)	29,000	---

Business strategies

The preferred, reported strategy of high quantity dealers (N=18) was to sell what they considered good quality cocaine, not cutting below a certain level of purity,[46] to mid-level dealers and lower level dealers. This strategy, as described by the interviewees, involved less profit per kilogram for the individual high quantity dealer, but also reduced the time involved in dealing and the risks associated with it, as compared with cutting heavily and selling greater volumes. Selling less frequently but higher purity drugs was also reported to be a way to remove the need for storage and workers needed for repackaging. Street dealers reported that they tended to sell worse quality product at higher prices. Street dealers and low quantity dealers talked about working more regularly, selling small amounts of drugs and had to organise for small packages to be made and stored. They also reported being constantly available to customers and thought they were more visible and exposed to higher risk of arrest, thus making this seem a more labour-intensive and riskier approach.

Some interviewees volunteered information about the factors which affected prices, including the amount of drugs dealers bought and the level at which dealers sold, access to

[45] While the interviewees discussed some of the types of costs and we have rough estimates for some of these, we do not have a full list of trade-related costs for each dealer per month.
[46] While the purity and quality of the drugs sold were discussed by the interviewees based on their own perceptions, we are not aware of the extent to which any further assessments of purity and/or quality were conducted.

and source of supply. There is some indication from the interviews that dealers may coordinate amongst themselves, setting the prices at which drugs are sold to customers, including dealers who work independently. Interviewees reported that even though they had access to cheaper drugs, they could not afford to sell them at a significantly different price to other dealers, because this could entail tensions with competitors:

> *"It's not a good idea to lower the prices too much, otherwise you can't make a profit. There are serious problems between competitors for all drugs" (I65).*

Discounting and customers

About half of the dealers (N=38, 52.8%) in our sample reported ever having given discounts. 25% (N=18) indicated having given some free/extra amount of drugs to new or regular customers and to friends (although this did not represent a regular discount). Dealers reported occasionally discounting when selling quantities of several kilograms, but in general bigger quantities would retail at different prices and no discount would be given on top of this. Sometimes dealers' friends were given drugs at the prices at which dealers bought them *("I would give it to my friends for the same price I paid" (I9))*. One dealer suggested that discounting could be a deceptive strategy:

> **"***It never really happens. I could say "here's some for free" but I'm actually tricking you: I might give you more but it's actually more cut" (I39).*

Two dealers mentioned discounts for women (including addicts), one in exchange for sex (I46). At the same time, one dealer commented that *"You do not do favours in the drugs world" (I61).*

Treatment of and attitudes towards addicts

Dealers expressed awareness that their trade was very much dependent on customers, including the addicts among them. In general, addicts were considered important customers. Nevertheless, other dealers suggested that addicts often struggled with money (especially heroin addicts) and that addicts were also very difficult and dangerous customers:

> *"They are difficult because they are involved with crime, they have nothing to lose and they aren't careful. They betray and lie." (I1)*

Only three dealers (I62, I38, I20) across the three samples admitted treating addicts in a more negative way than they would other customers. One of these dealers acknowledged that he "treated them worse" (I20). Addicts were also considered risky in that they attracted police attention and in that they were ready "for a fix" to talk to the police. Only street level and low quantity dealers in the sample met addicts on a daily basis. Higher level dealers expressed satisfaction at not having to engage in such contacts.

Some distinction was made by dealers between cocaine and heroin users. Cocaine users were generally preferred to heroin users, and were viewed by dealers as fitting a different profile: dealers suggested that sale of cocaine involved dealing with wealthier customers. For instance, an interviewee commented that:

> *"Cocaine addicts are the easiest in the world, because they only have a psychological addiction. They are different" (I23)*

Similar views were shared by other dealers (I6 and I38):

> *"Cocaine users are not difficult because they are middle-class people and cocaine is not really addictive" (I10).*

One dealer described his customers in the following way:

> *"My customers were high-level criminals. Then I had some women who worked at home, transsexuals…lawyers and they are great customers. (I63).*

With such customers, dealing was also often done off street, at locations previously agreed upon with a given customer. Heroin users were considered more troublesome (including with regard to their capacity to pay) and were often stigmatised by the dealers. This was also the case with dealers who used heroin, as explained by one of the interviewees:

> *"People who use cocaine don't consider it as a drug. Those who sell heroin are more withdrawn, they are more stigmatized. They have a worse reputation than those [who sell] cocaine" (I60).*

Another interviewee commented that:

> *"Heroin dealers are never seen, probably because they use. And people don't like those who use" (I20).*

Quality and reputation

Dealers in our sample considered 80% purity to be very good quality cocaine, though this level of purity was reported to be relatively rare (I47; I67). One dealer mentioned that Albanians sold the worst quality cocaine – 30% purity[47]. One high quantity dealer admitted that:

> *"We (Colombians) don't [cut drugs], only the "smaller" ones [low level dealers] do. Our cocaine is 70-90% pure. Bolivian [stuff] is very good (100% pure). "Cultivo" is legal there, so it's easier to process it. They [Bolivians] are fewer [less competition], so they sell it that way. If it gets here, people go wild and will give you money in advance because it's so good" (I36).*

According to dealers, the highest quality that can be found in Italy would be around 85% purity (I12; I25). About 70% purity was still viewed by the majority of interviewees who volunteered information on purity as good quality. In terms of cutting, one high quantity dealer suggested that from one kilogram of 94% pure cocaine he would make 1.5kg with 70% purity and would sell it that way (I43)[48]. Another dealer would make 3kg from 1kg, which would decrease the purity to about 30% if the initial quality was very good (I4). Bad quality was considered to correspond to 40% purity and below, which is in line with what

[47] According to an EMDDA report from 2008, there was great variation in terms of typical purity of cocaine in Europe: between 1% and 90% in 2006, although most countries reported values between 25% and 55% (EMDDA, 2008).

[48] This process is presented here as discussed by the interviewees, based on their own experience and perceptions. The extent to which such process is technologically feasible and/or the accuracy of the estimates around purity was not further investigated.

has been reported as the common quality available at street level by other sources (EMCDDA, 2008; UNODC, 2009). Some dealers suggested that when buying less than one kilogram, quality would always be lower (I39). Purity of heroin was not discussed in great detail in the interviews.

About 33% of all dealers in our sample reported returning the drug if it was of bad quality and 24% indicated not buying it. Another 8% reported mixing the drugs (if of bad quality) with better product or telling the customer about the quality and lowering the price. Only two dealers in our sample linked quality to safety and expressed concerns regarding the safety of the products they sold. One mentioned that nowadays drugs were being cut with stock cubes, strychnine, shoe polish and synthetic drugs, and noted that some of these would be harmful. The same dealer told us that he would "always give good stuff" because he did "not want anyone to overdose or feel sick" (I18). Another dealer thought that many dealers would not have scruples about how drugs were mixed or whether people could get hurt (I62). For the majority of the dealers, the concern about and commitment to quality appeared to be related to their standing, reputation, and future in the drug market and they did not express a particular concern about customers' wellbeing. To the extent that this was the case, as reported by those interviewed in this research, commitment to quality appears to have been motivated by expectations of higher profit. Generally, dealers suggested that nowadays those who cut drugs too substantially would make less money as, according to these interviewees, one of the main reasons for customers to return to the same dealer was the quality of the product supplied. Interviewees in our sample reported that dealers risked losing customers if they failed to maintain quality:

> *"Some sell it for less and cut it. But addicts aren't dumb and because they try drugs sold by different suppliers they know who has the best."(I65) It [bad quality] means losing credibility and consequently losing customers" (I29).*

Caulkins (2005) pointed out that "drug buyers do not know at the time of purchase what is the drug's quality (primarily purity, but to a lesser extent other attributes as well)" (p.8). This is because of the risks involved in trading in illicit markets such as the drugs markets, where transactions are rushed and formal testing may be impractical. Imperfect information about quality is relevant not only to the users, but also to the dealers: dealers are themselves buyers at the next higher market level (ibid.)

Furthermore, Caulkins and Reuter (2004) suggested that despite the high rates of turnover, drug markets are markets in which repeated business is the norm and is highly valued, and a context in which trust is important (p. 159-160). In this sense, building up trust and reputation for reliability and fairness may help in developing a somewhat stable network of clients (Coomber, 2003; Grundetjern, 2012; Zaitch, 2002). The interviews offered similar findings: Dealers reported aiming to maintain a regular customer base – customers who could be relied on to pay and not to bring the police. In order to achieve this regular customer base, dealers reported trying to build a reputation for being reliable and supplying drugs of good quality. As one dealer explained:

> *"At times they [customers] are like us (dealers) and they have several suppliers. So they go to someone else. But my customers would never get pissed off at me because I was reliable…I wasn't likely to get arrested" (I65).*

The majority of dealers admitted to being happy with the clients they had and not seeking to attract many new clients. Further, the interviews exposed dealers' almost superstitious

belief that systems and arrangements should not be changed if they were perceived to be 'working'.

Discussion

While the findings from the interviews with Italian cocaine and heroin dealers in prisons are not representative and thus should not be generalised, they nevertheless offer useful insights in to how these dealers report becoming involved in dealing, how the supply of drugs is organised and managed in their operations, the relationship of these dealers with customers, their business strategies and the importance given to building a reputation. In these interviews data relating to profits from dealing was limited.

This study identified three key aspects, in varying combinations, of routes into drug dealing: economic motivations, seeking to support dealers' own drug consumption and through the facilitation of friends and family. Dealing was the main occupation for the majority of the dealers in our sample (60%), and about 20% of the dealers reported not using drugs. Poly-drug dealing was not common within the study sample, as most dealers indicated selling only one main drug (68.1%). Cocaine was both the main drug sold and used by the dealers.
In relation to the supply of drugs, findings from the interviews indicate that these dealers tend to work with more than one supplier (70%), and that specific arrangements around supply (i.e., frequency of supply, quantities bought, place and methods of delivery) differ among dealers. While nearly half of the dealers in our sample (47%) were considered independent dealers (i.e., did not work within an organisation or group), potential collaborations were not excluded (40% of these dealers admitted to working together with others).

The interviewees were not able to offer detailed and/or complete information regarding their business profits, costs and revenues. Prices seemed to be affected by a range of factors, some of these related to the quantities bought, access to and availability of the drug(s) sold. The dealers in our sample occasionally granted discounts and gave away free/extra quantities of drugs to friends, regular and/or new customers. While some of these practices might have aimed to influence the demand for drugs, their effects (if any) were not further discussed by the interviewees.

Lack of supply, typically of short duration, had little impact on the customer base of dealers according to these interviewees. From the dealers' perspective, the balance between quality and purity of the drugs sold was an important aspect of their business approach and was perceived by the dealers as potentially having an impact on their reliability and reputation - which they saw as central to their success. Demand for drugs seemed stable, as dealers were able to maintain a somewhat regular group of customers, and did not report difficulties in selling the drugs. The dealers in our sample, and more specifically those involved in street dealing, were to some extent aware of the risks associated with such activity. For example, when discussing their relationship with customers, in particular those described by the dealers as drug addicts, the interviewees seemed to be faced with an apparent paradox. On the one hand, drug addicts were seen as important customers and were often allowed discounts, but on the other hand they were also considered dangerous and risky customers, as drug dealers feared being denounced to the police and commented that addicts may often struggle with payment and may be more likely to exhibit unpredictable behaviour.

It is hoped that this study provides useful insights into understanding how the cocaine and heroin market works in Italy, and the role that some dealers play within it. While contributing to the body of knowledge in this subject area, the methodological approach

and the size and characteristics of the sample population do not allow for a generalisation of the findings to the wider drug population.

Take home messages

While the findings from the interviews with Italian cocaine and heroin dealers did not aim to be representative and thus should not be generalised to the wider population of drug dealers, they nevertheless offer rich insights into several facets of the business of illicit drug trafficking. Some of the main insights from this study include:

- Entry in the illicit trade was often explained in relation to economic motivations, through the facilitation of friends and family and to support dealers' own drug consumption;
- Dealing was considered the main occupation by the majority (60%) of the dealers in our sample;
- About 20% of the dealers in our simple reported not using drugs;
- Most dealers (70%) indicated working with more than one supplier;
- Frequency of supply, quantities bought, place and methods of delivery tended to vary among the different dealers;
- Dealers in our sample emphasised the importance of quality of the drug sold and reliability and reputation of the dealer as important factors contributing to success in this business;
- Relationship with customers was often described in contradictory terms: customers were perceived as important but also constituted a potential threat;
- Interviewees' knowledge of business profits, costs and revenues, or willingness to discuss these aspects of their business, was limited within our sample.

Conflict of interests statement

The authors of this chapter have no conflict of interests to declare.

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CHAPTER 9. HOW THE DRUG LAWS IMPEDE ADVANCES IN HEALTH AND SCIENCE

David Nutt & Leslie A. King

Summary

Clinical research is inhibited by the legal status of many potentially useful psychoactive substances. Thus drugs in Schedule 1 of the UK Misuse of Drugs Regulations (e.g. LSD [lysergide], MDMA [3,4-methylenedioxymethamphetamine] and psilocybin) are considered to have no medicinal use. Not only is there a considerable cost in obtaining suitable licenses to carry out research, not to mention the high cost of pure substances, but the procedures for the eventual introduction of Schedule 1 substances into clinical practice are entirely obscure. Some of the substances in the restrictive Schedule 1 are there because of their status in the United Nations 1961 and 1971 Conventions. However, many others are not listed in those Conventions, and have been placed in Schedule 1 of the UK Misuse of Drugs Regulations for entirely domestic and often unnecessary reasons. One of the simplest solutions to this problem would be to re-schedule substances from Schedule 1 to 2. This would have no impact on the possible misuse of these substances, but would remove, at a stroke, the hurdles to their research and clinical development.

Introduction

In this chapter we argue that the present legal status of drugs such as psychedelics, cannabis and MDMA (3,4-methylenedioxymethamphetamine) has denied research to an extent that is a scientific scandal of massive proportions. Some of these problems arise from the international drug conventions, while others have been created by UK domestic legislation. This chapter is focussed primarily on how national and international laws can impede scientific advances in the UK. The current regulatory approach has resulted in an almost complete failure to explore the potential for these drugs as tools to progress brain research and for the development of new treatments of brain disorders. It is responsible for one of the great lost opportunities in the history of science. Indeed it is hard to find comparable examples in recent history, with the banning of embryonic stem cell research by the Bush administration being the only possible comparator.

The regulation of so-called “illicit” drugs under national and international laws is done with the explicit goal to reduce harms to users and society. There is currently extensive discussion about whether they have achieved anything of the sort, with many experts arguing that they have compounded harms for many people. However, one downside of the current laws is little discussed, and this is the negative impact that they have on research both in fundamental neuroscience and clinical treatment. This chapter explains the reasons for this, indicates some of the missed opportunities that have resulted and proposes some solutions that may improve the situation.

Background: the purpose of the drug laws

The purpose of the drug laws, whether the United Kingdom (UK) Misuse of Drugs Act 1971 (UK Government, 1971) or the United Nations (UN) Conventions (United Nations, 1961; 1971), is explicitly stated to protect people and society from harm, since drugs are controlled under these laws supposedly because of the harms they pose.

There are many criticisms of this approach, the main ones being:

- The legal sanctions used may cause more harm than the drugs they are designed to act against, for example the rise in crime and deaths in cocaine and opium producing countries
- Criminalizing drug users is frequently counterproductive in that a criminal record is usually more damaging to the individual than the effects of drugs. Often it may force people to the margins of society, making drugs their only means of making money. Moreover, imprisonment often leads to increased rather than decreased drug use since drugs are widely available in prison.
- The penalties – including execution in some countries – are in most cases disproportionate to the harms that drugs cause. They are also out of step with the penalties for other crimes, so in the UK a murderer will serve about 9 years in prison and a rapist 6, whereas drug supply offences may be much greater with up to 14 years not uncommon; there is one individual who was engaged in sole production of LSD (lysergide) who is currently serving a 22 year sentence.
- The selection of drugs that are controlled is arbitrary and excludes some such as alcohol and tobacco that are much more harmful than many that are controlled.

An issue that is less discussed is the negative impact that controlling drugs through the criminal law has on research and health care. This chapter addresses this in a UK context though it should be remembered that in some countries even more extreme problems ensue. For example, a number of countries refuse to allow any opioid medication for pain simply because this is the easiest way for them to comply with the UN treaties. Their people with pain or terminal illness therefore suffer unnecessarily in a vain attempt by the authorities to limit opioid misuse.

The control of drugs in the UK

The situation in the UK is that drugs are controlled under the Misuse of Drugs Act 1971 (UK Government, 1971; Figure 1). The recommendation to "control" a drug under the Act is made by the Advisory Council on the Misuse of Drugs (ACMD); they also indicate which of the three Classes the drugs should be put into (A= high harm, B = intermediate harm, C = moderate harm). They also recommend into which of the five Schedules of the Misuse of Drugs Regulations 2001 (UK Government, 2001) the drug should be put.

Figure 1. Location of a range of commonly discussed drugs in relation to the three Classes of the UK Misuse of Drugs Act 1971and the five Schedules of the Misuse of Drugs Regulations 2001.

Schedules ↓	Class A Very high harm	Class B High harm	Class C Moderate harm
2, 3, 4, 5 **Medicines**	Opioids Methylamphetamine i.v. Amphetamine	Amphetamine Barbiturates	Benzodiazepines Ketamine GHB Buprenorphine Steroids
1 **Not currently medically recognised**	Cocaine MDMA Crack cocaine LSD Psilocybin	Cannabis	Clenbuterol Benzylpiperazine

The Class in the Act determines the penalties for possession or supply, e.g. for a Class A drug possession for personal use can result in up to 7 years imprisonment, Class B, 5 and Class C, 2 years. The Scheduling under the Regulations is decided by two factors. The first is whether the drug has an established medical use and the second is the perceived harm of the drug should it be stolen; this defines the degree of security that is required for it to be held in a hospital, pharmacy, laboratory etc.

Drugs in Schedule 1 are deemed to be of no clinical value whereas Schedule 2, 3, 4 and 5 drugs are considered as having utility as medicines. Regardless of their harms, as implied by their Class, all Schedule 1 drugs have to be held at a level of security higher than that for the other Schedules. This requires secure safes or locked refrigerators that are bolted to the wall and floor with at least two locks controlling entry. Moreover, possession of Schedule 1 drugs requires a special license that now costs £3000 plus annual retaining fees; and license holders are subject to random visits by police working for the Home Office. Even the most sought after and abused Schedule 2 drugs such as heroin and methadone, which are considerably more dangerous than most Schedule 1 drugs, do not require this level of safety and surveillance.

Currently National Health Service (NHS) hospitals and university departments that conduct biomedical research, which requires controlled drugs, are exempt from the need to purchase a license for holding drugs in Schedules 2 to 5. The Regulations state that these "... *do not require licenses to possess and supply drugs in Schedules 2, 3, 4 Part I, 4 Part II and Schedule 5, but they do require licenses to produce any of those drugs and to produce, possess and/or supply drugs in Schedule 1".* Few academic institutions are prepared to pay the costs, both in Home Office fees and opportunity costs to maintain the secure safe, to allow research on Schedule 1 drugs. Also, the security rules apply to the manufacture of these drugs, which means few companies are prepared to make them because of the extra efforts and costs involved. In our ongoing MRC-funded grant (MR/J00460X/1) study of psilocybin for resistant depression we have to give the drug intravenously because using it orally would cost ten times as much (£3000 per dose compared with £300), so would be unaffordable on the grant. Until fungi containing psilocybin were banned in 2005, we could obtain an effective oral dose as mushroom extract for about £10. Thus, the regulations have massively increased costs, without, as far as we can tell, having had any impact on the use or

harms of magic mushrooms.

Does this matter? We believe it does since some Schedule 1 drugs such as LSD, psilocybin, MDMA and cannabis are hugely important in neurobiology as they have profound and unique effects on brain function. Moreover, each has considerable potential as treatments for disorders for which current treatments are insufficient such as addiction, depression, Post Traumatic Stress Disorder (PTSD) and terminal cancer. Yet this research has almost disappeared in the last 40 years since these drugs were made illegal. The scientific enquiry on fundamental brain processes underlying experiences such as consciousness, insight and self has been significantly slowed and therapeutic possibilities denied. This is holding back UK research efforts on several fronts and impeding advances in neuroscience and therapy. Similar issues apply in all other countries since those with any research capability have signed up to the UN Conventions and so regulate drugs in a similar way to the UK.

Why many of these drugs should have been controlled at all given their relative safety is a subject for a different paper, but it appears that governments get some sense of achievement (at least by appeasing elements of the media) from banning drugs even when the evidence for the drug being harmful is tenuous. What is clear is that the unintended consequences of these bans have not been thought through – if indeed they were considered at all. These consequences are potentially large and important and are discussed in the sections below.

Research opportunities denied

Many of the drugs in Schedule 1 were being developed as treatments before they were banned and many appeared to offer special opportunities both in terms of our understanding of fundamental brain functions as well as offering possible new ways to heal the brain of disorders as wide ranging as PTSD, addiction, spasticity and cluster headaches.

LSD

When this drug was first discovered, its potential to illuminate the way the brain works and how it might alter in states like psychosis was very apparent. For this reason in the 1950s there were thousands of studies on LSD. However, since the drug was added to the United Nations Convention on Psychotropic Substances in 1971 (United Nations, 1971) there has been just one (Vollenweider and Kometer 2010). Given the enormous growth in the technologies to study brain such as Positron Emission Tomography (PET) and Magnetic Resonance Imaging (MRI) that have taken place over the past 50 years, this represents a major lost opportunity. It could be argued that this failure to use LSD and related psychedelics to understand the brain is the greatest missed opportunity in the history of neuroscience and psychiatry. It was opposed at the time by no less a person than Robert Kennedy who instigated a congressional hearing in the United States to explore the fears of scientists and therapists about the banning of the drug. His perplexity at the intellectual dishonesty supporting the political decision to ban the drug is clear in this extract from the hearing:

Kennedy: Why if [clinical LSD projects] were worthwhile six months ago, why aren't they worthwhile now? . . . We keep going around and around. . . . If I could get a flat answer about that I would be happy. Is there a misunderstanding about my question? [Kennedy, quoted in Lee & Shlain, 1985, p. 93]

One area of treatment where LSD was extensively used was as an adjunct to psychotherapy (Pahnke et al., 1971). Between the 1950s and mid-1960s there were more than 1000 clinical papers discussing 40,000 patients, several dozen books and 6 international conferences on LSD-assisted psychotherapy (Grinspoon and Bakalar, 1979). A particularly remarkable benefit was shown in helping patients with terminal illness come to terms with dying – it appeared to give them a sense of their being at one with themselves and their illness, and reduced the fear of life ending. This allowed many of them to die feeling fulfilled rather than frightened; a marked contrast with the current situation where for most people death is associated with mental numbing through heavy sedation and analgesia with profound and unpleasant constipation.

LSD was also used to treat alcoholism with the results of 5 trials showing an effect at least as good as any current treatment for this severe addiction (Krebs and Johansen 2012), yet the last of these studies was conducted in the 1960s and the drug has not been used in mainstream medicine since.

LSD derivatives without psychedelic properties provide another example of wasted opportunity. Many of them might have utility in place of LSD. One such is 2-bromo-LSD, which is now being explored by an individual doctor as a treatment for cluster headaches. These are the most painful and unpleasant headaches known (female sufferers will often describe them as being worse than childbirth) and for which there are no proven treatments. They almost always occur at night waking the patient from sleep with both severe pain and a sense of fear and dread sometimes like impending death. They can occur in clusters with periods of normal sleep in between although some people have them almost every night (chronic cluster). Many sufferers find the condition so unbearable that they commit suicide.

Internet support groups have for many years contained reports that psychedelics such as LSD and psilocybin can alleviate the episodes. This has prompted researchers to test 2-bromo-LSD in the condition with promising initial results (Karst et al., 2009). 2-Bromo-LSD is a non-psychedelic derivative of LSD, which makes its development as a potential treatment considerably easier than that for LSD itself, and attempts to make 2-bromo-LSD more widely available as a treatment for cluster headaches are under way. There are likely to be many similar compounds that are non-psychedelic derivatives of LSD that could also work in cluster syndromes but the current regulatory systems militates against any mainstream pharmaceutical company working in this field. Unfortunately, the status of 2-bromo-LSD under the UK Misuse of Drugs Act is ambiguous (King et al., 2013). Following a request, the Home Office stated that 2-bromo-LSD was not a controlled drug and therefore not subject to Schedule 1 restrictions. However, until this clarification is made public by revising the Misuse of Drugs Act 1971 this will not be apparent to either scientists or law enforcers.

MDMA

MDMA – better known by its street name ecstasy - was originally called “empathy”, a term that much better describes its effects when used in the therapeutic situation (Sessa and Nutt 2007). For about twenty years MDMA was used by psychotherapists mostly in the USA but some in Europe, to assist couples work through their problems in a therapy session; the drug effects suppress hostility and anger so putting the couple back to the situation when they were first in love. This use and any research into the role of MDMA in therapy ended in the early 1980s when the drug was added to the 1971 United Nations Convention.

Thankfully a few committed clinical researchers have resurrected its use in recent years,

particularly for the treatment of patients with PTSD who have not responded to standard therapy (Mithoefer et al., 2010). PTSD is a growing problem particularly in the military returning from combat in Iraq and Afghanistan where it may be compounded by concussion and blast injuries; recent data show that more US service personnel engaged in these "wars" have died from suicide than in combat. This illustrates the pressing need for new treatment interventions.

We are in the process of attempting to rise funding to do such an MDMA study with UK military veterans. If, as seems likely from the USA experience, it may be helpful then we shall face a real conundrum – for if other doctors want to use it they will have to obtain a Schedule 1 license at great cost. Also the drug itself will also be prohibitively expensive. We are being quoted about £500 per 100mg dose, which can be bought "illegally" for about £5.

Psilocybin

Psilocybin is the active ingredient in 'magic mushrooms' (e.g. *Psilocybe semilanceolata*), and provides another interesting example of wasted clinical utility. Why psilocybin is a Class A drug is not clear since it is a short acting moderately potent psychedelic drug. Until 2005 in the UK, no offence was committed when intact mushrooms were consumed providing they had not been 'prepared'. However, for purely political reasons, and in the absence of any scientific evidence (the Advisory Council was not consulted), the Drugs Act 2005 added mushrooms to Class A alongside drugs such as heroin and cocaine. Psilocybin has been used previously to assist people come to terms with cancer (Grob et al., 2011), but this research largely dried up because of the restrictive regulations.

Psilocybin has, however, continued to be used, usually as mushroom tea, by individuals who have not benefited from conventional medicine. These include people with obsessive-compulsive disorders to reduce symptoms for periods of months after each dosing. Also for some people with the severe and painful syndrome of cluster headaches, which in many cases are untreatable and can lead to suicide, mushrooms may be life-changing in that they can alleviate or even obliterate the episodes, at least for a time.

We have recently managed to clamber over the regulatory and cost hurdles and complete the first ever functional MRI (fMRI) study of this drug. This is the first such study of any psychedelic despite this technology being around for over twenty years. It further emphasizes how seminal neuroscience research has been stunted by the drug regulations.

What was remarkable and surprising about our findings was that the changes that psilocybin produced in the brain were exactly the opposite of what we had predicted – it reduced brain activity rather than increasing it (Carhart-Harris et al., 2012a). As well as fundamentally changing our view of how these drugs work, these findings have major implications for our understanding of brain function, and how it goes wrong in illnesses such as schizophrenia and depression.

One particularly interesting finding from our psilocybin study was that the part of the brain that produces depression had its activity reduced by psilocybin, and beneficial effects on positive memory encoding were seen (Carhart-Harris et al., 2012b). This led us to seek funding for a clinical trial of psilocybin in patients whose depression has not responded to conventional treatments. We have now obtained funding from the UK Medical Research Council (MRC) to conduct this trial and now hope the regulators will allow us to conduct this research and that the outcome will be positive. However, if we do find psilocybin to assist in depression treatment, then a very real problem for patients will arise because it will be

almost impossible for this treatment to be used by other psychiatrists. This is because anyone wishing to use psilocybin will need to obtain a license to hold the drug and the costs of this plus the costs of the drug will be prohibitive. Similar considerations apply to doctors who might wish to use psilocybin for cluster headaches; moreover it is unclear if they would even be given a license to use the drug for either treatment.

Mephedrone

Mephedrone is a cathinone derivative and stimulant that became popular in the UK over the past few years. The reasons for this are that it is was legal for a while and became widely available from "head shops" or over the internet. The popularity of mephedrone led to a media outcry that led to the drug being banned in 2010 despite little evidence of harm and with little knowledge of its pharmacology (Nutt 2010a; 2010b].

Controlling mephedrone presented the government with several problems because they chose to use generic legislation to try to block the sale of chemical structural analogues of mephedrone that might have similar action. Of particular concern was the fact that one useful medication is structurally similar to mephedrone, though without stimulant actions. This is the anti-smoking and antidepressant agent bupropion (Zyban®) that had to be specifically excluded from the legislation (Nutt 2011).

However, although bupropion was exempted from the controls around mephedrone, such exemptions will not apply to any new drugs with similar structures. This means that derivatives of bupropion might be illegal even if they, like bupropion, had a quite different pharmacology from mephedrone. Thus pharmaceutical companies will no longer work with this chemical series to try to improve on bupropion, which is a great pity since it is one of the few drugs proven to aid people quitting smoking and one with a unique mode of action.

The case of bupropion and mephedrone illustrates another major problem of the current legal restrictions, namely the way they can seriously impede the development of new medicines that have similar chemical structure to controlled drugs. The banning of mephedrone had several interesting consequences. It led to the suppliers developing new cathinone analogues such as naphyrone, which was subsequently banned even though it was hardly used because its effects were unpleasant (Nutt 2010). The ban also had little impact on the sales and use of mephedrone, which still was the most popular drug amongst clubbers a year after it was banned (Wood et al., 2012). Furthermore, by late 2013 over 30 cathinone derivatives had been encountered as illicit products in the European Union. Many of these act in a similar way to mephedrone, but remain uncontrolled in most European countries, and some fall outside the otherwise comprehensive UK generic controls.

The banning of naphyrone and its analogues was, however, another example of the law of unintended consequences. Naphyrone was discovered as part of a program to invent new treatments for addiction (Meltzer et al. 2006), based on the well established premise that drugs with similar chemical structures to abused drugs may have treatment value. Examples of this include varenicline which can substitute for nicotine, and buprenorphine for heroin. The new anti-naphyrone legislation now means that there will be many analogues of naphyrone that might be useful in the treatment of stimulant addiction that now fall foul of the law. Since many of these would be illegal as soon as they were invented, no drug company will bother to make them. Society is thereby denied what could be important therapeutic advances: a sad outcome considering there are no proven treatments for stimulant addiction at present.

Cannabis

This plant intoxicant provides a remarkable example of the illogicality of the current Schedules. The active ingredient of cannabis, at least in relation to the desired effects of cannabis is Δ^9 tetrahydrocannabinol or Δ^9THC. This, plus related compounds are Schedule 1, Class B drugs, a positioning that does not fit well with the overall harmfulness of cannabis, which many observers now see as less than that of alcohol (Weissenborn and Nutt 2012).

However, the new medicinal form of cannabis called Sativex® has just been licensed for the treatment of certain types of pain and spasticity. This is a solvent extract of the cannabis plant that contains THC and other cannabis products in a solution that is sprayed into the mouth. Sativex is currently in Schedule 4 because cannabis extracts are treated differently to plant cannabis even though the active ingredients are the same. However, now different preparations of the same drug are in different Schedules, which makes no scientific sense. Again the Schedule 1 status of THC in cannabis plant means that studying the effects of smoked cannabis, the usual way it is taken, becomes complex and expensive. A further anomaly arises with tetrahydrocannabivarin (THCV); its placement in Schedule 1 can best be described as unintentional (King, 2013). Yet THCV has the potential to reverse the impairing effects of THC (Pertwee et al., 2007). Partly because of its Schedule I status, THCV has been little studied in humans.

What is the basis of the current UK regulations?

As described above the current Classes and Schedules derive from the Misuse of Drugs Act 1971 and the Misuse of Drugs Regulations 2001 respectively, which set out to provide a framework for the control of drugs that were viewed as harmful. The Classes in the Act were created in the UK, but the Schedules largely derive from the two UN Conventions of 1961 and 1971. The UK has scope to limit or change what goes into Schedule 1 of the Misuse of Drugs Regulations only if the substances are not already in Schedule 1 of either Convention. So unless we decide to step out of the Conventions we are stuck with MDMA, LSD and psilocybin as Schedule 1 drugs. However, in the UK some substances were recently added to Schedule 1 on a temporary basis.

Temporary Banning Orders

This new approach to controlling access to new “legal” highs is formally known as Temporary Class Drug Orders (UK Government, 2011). It was first used for controlling the ketamine analogue methoxetamine, often known by its street name of ‘mexxy’ (UK Government, 2012). This law is intended to prevent importation and sale of new “designer” drugs; whereas there is no possession offence. There is a year from the establishment of the banning order during which time data have to be collected to allow a decision to be made as to whether the drug should be controlled under the Misuse of Drugs Act 1971 or returned to legal status. The temporary control of methoxetamine included its addition to Schedule 1. This was rather illogical for several reasons. First, ketamine itself is in Schedule 4, and there is no evidence that methoxetamine is more harmful than ketamine. Secondly, the absence of a possession offence does not seem to fit easily in a scheme that requires licenses for research purposes. Finally, the Schedule 1 status makes it difficult for scientific research to be carried out with methoxetamine. This contradicts the principle of the one year temporary ban which is meant to allow time for information to be collected on the harmful properties of a drug. A further example of what can only be described as the default action of adding Temporary Class drugs to Schedule 1 occurred in early 2013 with certain novel phenethylamines (UK Government, 2013). Among other substances, the temporary control includes 2(4-bromo-2,5-dimethoxyphenyl)-*N*-[(2-methoxyphenyl)methyl] ethanamine. When labelled with 11C, this compound, also known as Cimbi-36 or 25B-NBOMe, is a promising

PET ligand for the 5HT system. In addition to some of the arguments noted above, the lack of subtlety in the legal approach means Cimbi-36 is controlled despite the fact that the doses used in PET studies are well below those having any subjective effects.

Why does research stop?

The UK, UN and other authorities will argue that making a drug controlled does not necessarily stop research – in most countries there are always ways to get licenses/exemptions to do research – though not always for treatment. However, the reality is that since the drugs discussed above have become controlled, for each of them research has come to a near standstill. This provides strong evidence that the law is impairing research. Funders are inhibited by potential legal challenges if they fund work with "illegal" drugs, but they are even more fearful of media opprobrium and "bad press".

Many, if not most, pharmaceutical companies shy away from working in the area of "illegal" drugs because of the stigma they feel will come their way and the chore of regulations. These, coupled with the fact that regulations may change arbitrarily under pressure from the media and so undermine the acceptance of newly invented drugs, are seen as too great a risk. Finally there are the costs of licenses and monitoring involved. These may not seem much in the overall costs of research but they certainly act as a deterrent. This is particularly important since licenses need to be paid for before any research can be undertaken, so developing pilot data on which to base a grant is virtually impossible. This applies to preclinical as well as clinical research.

European perspective

Drugs are used widely across Europe and so there is a great need for the sharing of intelligence on use and harms as well as sharing research findings. This role is currently undertaken by the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), based in Lisbon. However, European competence for regulating drugs is confined to 'New Psychoactive Substances'. This function is carried out by the Council of Ministers working alongside the European Commission and the Parliament, although EMCDDA itself has no regulatory role. From 1997 to late 2013, EMCDDA carried out risk-assessments on only thirteen substances, of which ten have been recommended for EU-wide control. The specific details of such control (for example, the classification and scheduling in the UK) is left to the discretion of individual Member States.

At the recent G8 summit David Cameron, the UK Prime Minister, announced that the UK would lead the world in "legal highs" research (see: https://www.gov.uk/government/publications/new-psychoactive-substances-g8-statement-on-collection-and-sharing-of-data). In practice the forensic science centres that test new compounds and tissue from users who have come to harm find that the speed of their analysis is severely slowed by the requirements to get licenses to hold and – separately – to share samples and standards with other laboratories.

Commercial suppliers of certified analytical reference materials, many of which are manufactured overseas, typically take weeks or months to supply standards required to investigate deaths from new psychoactive substances consequently delaying or even preventing the investigation. Again, the Regulations apply to test standards that are used in amounts that are exceptionally low and well beneath a recreational dose. Worse, sharing standards with overseas laboratories, even if in Europe or the Channel Islands, requires a separate import or export license for each laboratory and for each compound – a frustrating waste of time and money.

Possible solutions

What are the ways forward? First we need to accept that there are enormous opportunities for research with these drugs. At the very least they are widely used by young people so exploring their actions may lead to a better understanding of how to reduce harms. But, more importantly, they can fundamentally alter the way we understand the workings of the brain and so may lead to new approaches to treatment. Research funders should embrace the opportunities for radical new insights into neuroscience that these drugs provide.

There can be no argument that the current regulatory controls are the main reason that this research is so impeded. Moreover, this limitation of research and treatment opportunities significantly exceeds any past or potential health benefit from this scheduling.

It is a moot point whether we need Schedule 1 at all, so the simplest approach would be to abolish it. This might seem difficult under the current UN Conventions but these were meant to be flexible and responsive to new scientific findings and so could be changed. There are examples of drugs being re-scheduled because of treatment utility – for instance dronabinol, the synthetic THC which is used for nausea and appetite stimulation in cancer patients. So in theory any of the drugs we have discussed could also be removed from the UN Schedule 1. Maybe this chapter will provide the impetus for discussion at this level? It is interesting to note that many countries, most notably the USA and the Netherlands, have extensive use of herbal cannabis for medical treatments despite this being precluded by the UN Conventions.

Alternatively, the UK government could make research establishments, including NHS hospitals, exempt from needing Schedule 1 licenses, as they currently are for controlled drugs in other Schedules. This would minimize the impact on research efforts and facilitate treatments. Apart from reviewing the status of substances such as THCV and 2-bromo-LSD, the UK Government could maximize the potential for understanding new drugs by not placing them into Schedule 1 when they are subject to Temporary Class Drug Orders.

Another approach is to set a threshold for researchers such that an amount of drugs below a certain limit would not require a license. This could be less than a single recreational dose, or could be set at a standard amount of say 100mg [perhaps less for some psychedelics such as LSD]. Such small amounts are hardly likely to be diverted.

The regulations relating to import licenses need rationalising. Currently an import license is only valid for a few weeks and must be matched with either an export license, or in the case of a substance not controlled in the exporting country, a “letter of no objection”. Frequently the import license expires before the export documents are obtained. One approach would be to allow them to run for a year or more. The Home Office could also allow a range of compounds to be imported on each license rather than one.

Conflict of Interest Statement

The authors of this chapter have no conflicts of interest to declare.

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CHAPTER 10. THE ADDICTION CONCEPT REVISITED

Jürgen Rehm, Charlotte Probst, Ludwig Kraus & Shaul Lev-Ran

Summary

In the past 50 years, there had been quite varied definitions and operationalizations of the term addiction, and up to today, there are different underlying concepts in the two major classification systems by the World Health Organization (ICD) and by the American Psychiatric Association (DSM). This chapter reviews current and past definitions and introduces a new concept "heavy use over time" which could replace current definitions. First, heavy use over time causes the changes in the brain we currently associate with substance use disorders. Second, heavy use over time is also very closely linked to all criteria used to define such disorders in medical classification systems. Third, heavy use over time is easy to operationalize and fourth, it has been shown to associate with mortality and morbidity outcomes of dependence or other substance use disorders better than current diagnostic criteria. Finally, defining substance use disorders as heavy use over time promises to better align treatment with standard medical treatments and could play a role in reducing stigma. To summarize, heavy use over time promises to reconceptualise addictions/substance use disorders in a parsimonious and consistent matter, in line with major scientific results.

"Dependence is a rather useless term…..the term is often used in such a way that one assumes, on the basis of consequences, that dependence is at hand, which means that we generally have no indications on dependence which by definition are separate from the consequences. Therefore I will from here on principally disregard the concept of dependence" (Bruun, 1973)

Based on currently accepted diagnostic criteria, addiction is defined according to physical, psychological and behavioural criteria. Despite the well-established common factor of heavy substance use over time, this is not included in current diagnostic criteria. In this chapter we wish to propose that heavy use over time should be used as the main definitory criterion for the diagnosis of addiction. Moreover, though criteria for addiction have changed considerably over the years, heavy use over time is the one constant which can be seen as underlying all definitions.

A bit of selective history

Without attempting any systematic history of addiction (for a discussion of terminology of and concepts underlying the term see (Room et al., accepted)), we would like to highlight some of the diversity of what has been understood in the last two centuries under this term. From its inception to originally characterize heavy drinking behaviour, it comprised additional elements attempting an "explanation" of such behaviour in terms of an underlying compulsion (Room, 1987), and such elements have continued until today, when Saunders speaks about an "internal driving force" underlying the continuation of heavy substance use (Saunders, 2013). From its first use, addiction was also very much associated with the notion of a moral weakness, and many of the later concepts tried to distinguish themselves from any kind of this moral underpinning. One of these concepts was the disease concept (Jellinek, 1952), which perceived alcohol dependence and later all addictions as a medical disease with symptoms. From a psychological perspective, addictions were often described as being to a large degree determined by reinforcement of positively evaluated situations, and consequently interventions were conceptualized preventing heavy drinking occasions ("relapses" of prior forms of use; (Marlatt and Gordon, 1985)). The experiences of US veterans of the Vietnam conflict, where a sizable number of US soldiers became addicted to heroin, but the vast majority

stopped using after returning home (Robins, 1993), led to some re-thinking about the importance of the social environment in shaping addictions, and some conceptualizations used an entirely social determination framework.

Our discussion so far has been in terms of the more "pure" and monothematic conceptualizations, but in fact many conceptualizations had been multidimensional, such as substance dependence being defined as a disease in the International Classification of Diseases (ICD; see below for ICD 10), with referral to biological, psychological and behavioural elements. Edwards and Gross (Edwards and Gross, 1976) suggested a separation of symptom and consequence which has been influential although the separation has not been fully implemented in the more recent definitions (e.g., DSM-IV or -5, which kept several consequences such as failure to fulfill role obligations, see below). What has been added to the mix of conceptualizations in recent years was the notion of a brain disease, more specifically addiction as a "chronic and relapsing brain disease" (Leshner, 1997, McLellan et al., 2000, Volkow et al., 2003).

This chapter gives an overview over recent developments in the conceptualization of substance use disorders in medical classification systems and thereby shows that our understanding of substance use disorders is not stable but dependent on societal/political changes as well as insights obtained by research (first part, heading 1). Based on that, the replacement of current classification concepts by the definition as "heavy substance use over time" is discussed (second part, heading 2).

Concepts and definitions of disease change over time. This is especially true for substance use disorders or for the wider term of "addiction", which have received as variable as conceptualizations as moral weakness, medical disease, entirely socially determined behaviour or brain disease.

How "addiction" is defined in medical classification systems?

Different conceptualizations of substance use disorders[49] could also be seen in the major classification systems for diseases (for an overview see (Room, 1998)). In the last 60 years addiction was not always seen as one phenomenon which occurred more or less independently of the underlying psychoactive substance. Most prominent among the distinctions based on substances is the now infamous split in the late 1950s by the World Health Organization (WHO) between "drug addiction" and "drug habituation", with alcohol and tobacco being classified into the latter category (World Health Organization, 1957); (http://whqlibdoc.who.int/trs/WHO_TRS_116.pdf). At that time, in accordance with political orthodoxy, the WHO Expert Committee on Addiction-Producing Drugs distinguished between the addiction-producing illegal drugs with the characteristics of compulsion, tolerance, psychological and physical dependence and detrimental effects on the individual and on society, in contrast to the habit-forming legal drugs of alcohol and tobacco, with the characteristics of a desire to take the drug for individual well-being, little or no tendency to increase the dose, some degree of psychological but no physical dependence, and little or no detrimental effects (World Health Organization, 1957, pp. 9–10; see also Rehm and colleagues (Rehm et al., 2013a) for further elaborations). These distinctions were basically made to justify international control for illegal drugs, whereas no international control measures were deemed necessary for alcohol and tobacco.

[49] We will use the term "substance use disorders" for the current view of what is described in DSM-IV, DSM-5 and ICD-10. As will be elaborated later, it is suggested that these definitions could and should be replaced by "heavy use over time".

Current definitions of substance use disorders are listed in detail below (from (World Health Organization, 1993); and from (American Psychiatric Association, 2013). While until recently, both diagnostic systems used for classifying mental disorders (ICD-10 and DSM-IV) were compatible in terms of defining dependence (Üstün et al., 1997)[50], the DSM-5 moved away from this, and the new ICD-11 is expected to widen the gap even further.

Currently, in medical classification systems substance use disorders are defined by a number of criteria which are associated with heavy use, where no criterion is necessary or sufficient. The two major classification systems differ in their definitions.

Diagnostic criteria for research (DCR) ICD-10 for alcohol dependence and harmful use

Harmful use

A pattern of psychoactive substance use that is causing damage to health. The damage may be physical (as in cases of hepatitis from the self-administration of injected psychoactive substances) or mental (e.g. episodes of depressive disorder secondary to heavy consumption of alcohol).

Psychoactive substance abuse DCR-10:

A. There must be clear evidence that the substance use was responsible for (or substantially contributed to) physical or psychological harm, including impaired judgement or dysfunctional behaviour.
B. The nature of the harm should be clearly identifiable (and specified).
C. The pattern of use has persisted for at least 1 month or has occurred repeatedly within a 12-month period.
D. The disorder does not meet the criteria for any other mental or behavioural disorder related to the same drug in the same time period (except for acute intoxication F1*x*.0).

Dependence syndrome

A cluster of behavioural, cognitive and physiological phenomena that develop after repeated substance use and that typically include a strong desire to take the drug, difficulties in controlling its use, persisting in its use despite harmful consequences, a higher priority given to drug use than to other activities and obligations, increased tolerance, and sometimes a physical withdrawal state. The dependence syndrome may be present for a specific psychoactive substance (e.g. tobacco, alcohol or diazepam), for a class of substances (e.g. opioid drugs), or for a wider range of pharmacologically different psychoactive substances.

DCR-10

A. Three or more of the following manifestations should have occurred together for at least 1 month or, if persisting for periods of less than 1 month, should have occurred together repeatedly within a 12-month period:

1) a strong desire or sense of compulsion to take the substance;
2) impaired capacity to control substance-taking behaviour in terms of its onset, termination, or levels of use, as evidenced by the substance being often taken in larger amounts or over a

[50] ”Abuse” and ”harmful use” were clearly conceptualized as different concepts. Moreover, there was a problem in reliably and validly measuring these concepts (Üstün et al., 1997) While dependence can be measured reliably and validly, measurement seems to be impacted by slight variations of instruments (e.g. CIDI version), as the wide variability of prevalence within the same country shows (e.g., (Rehm et al., 2005)).

longer period than intended, or by a persistent desire or unsuccessful efforts to reduce or control substance use;
3) a physiological withdrawal state when substance use is reduced or ceased, as evidenced by the characteristic withdrawal syndrome for the substance, or by use of the same (or closely related) substance with the intention of relieving or avoiding withdrawal symptoms;
4) evidence of tolerance to the effects of the substance, such that there is a need for significantly increased amounts of the substance to achieve intoxication or the desired effect, or a markedly diminished effect with continued use of the same amount of the substance;
5) preoccupation with substance use, as manifested by important alternative pleasures or interests being given up or reduced because of substance use; or a great deal of time being spent in activities necessary to obtain, take or recover from the effects of the substance;
6) persistent substance use despite clear evidence of harmful consequences, as evidenced by continued use when the individual is actually aware, or may be expected to be aware, of the nature and extent of harm.

Diagnostic criteria for alcohol use disorder as an example of substance use disorders in DSM-5

A problematic pattern of alcohol use leading to clinically significant impairment or distress, as manifested by at least two of the following, occurring within a 12-month period:
1) Alcohol is often taken in larger amounts or over a longer period than was intended.
2) There is a persistent desire or unsuccessful efforts to cut down or control alcohol use.
3) A great deal of time is spent in activities necessary to obtain alcohol, use alcohol, or recover from its effects.
4) Craving, or a strong desire or urge to use alcohol.
5) Recurrent alcohol use resulting in a failure to fulfill major role obligations at work, school, or home.
6) Continued alcohol use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of alcohol.
7) Important social, occupational, or recreational activities are given up or reduced because of alcohol use.
8) Recurrent alcohol use in situations in which it is physically hazardous.
9) Alcohol use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by alcohol.
10) Tolerance, as defined by either of the following:
    a) A need for markedly increased amounts of alcohol to achieve intoxication or desired effect.
    b) A markedly diminished effect with continued use of the same amount of alcohol.
11) Withdrawal, as manifested by either of the following:
    a) The characteristic withdrawal syndrome for alcohol
    b) Alcohol (or a closely related substance, such as a benzodiazepine) is taken to relieve or avoid withdrawal symptoms.

The DSM-5 presents criteria for substance use disorders for ten classes of substances (here displayed for alcohol) (American Psychiatric Association, 2013). The criteria themselves did not change much from DSM-IV criteria for abuse and dependence (American Psychiatric Association, 2000), but the two diagnoses were put together forming one single diagnosis: 'Substance Use Disorder' (Hasin et al., 2013). The former concepts of abuse and dependence were meant to capture two different dimensions with abuse reflecting impaired social and everyday functioning and dependence representing more physiological aspects as tolerance and withdrawal and insinuating that abuse was a lighter form, prodromal to dependence. In DSM-5 both diagnoses were integrated into a one dimensional concept of substance use disorders as similarly suggested by Rounsaville, Spitzer, and

Williams (Rounsaville et al., 1986) more than two decades ago. Hasin and colleagues (Hasin et al., 2013) extensively reviewed evidence for that fusion and brought forth the following arguments: The hierarchy of abuse and dependence does not conform to the empirical evidence with respect to severity of symptoms and it limits the reliability of the abuse diagnosis.

- The new concept overcomes the problem of 'diagnostic orphans'.
- Factor analyses of abuse and dependence criteria led to either two highly correlated or one single factor.
- Item response theory analysis confirmed unidimensionality as well as overlap in severity of symptoms.

Reviewing single symptoms led to the exclusion of the abuse criterion of recurrent substance-related legal problems due to its poor fit with other criteria and its little explanatory value. Craving or a strong urge to use the substance was added to the criteria. A threshold of at least two fulfilled criteria was applied to the overall eleven criteria, complemented by a measure of severity: two or three criteria lead to a diagnosis of a mild, four or five to a moderate and six or more to a severe substance use disorder (American Psychiatric Association, 2013). The new diagnosis moved towards a more dimensional perspective on substance use disorders, a perspective that has been linked to the hope of reduced stigmatization (Rehm et al., 2013a, Rehm and Roerecke, 2013), but may add the difficulty of properly identifying the group of individuals (formerly diagnosed as "dependent") which may be in need of treatment. DSM-5 tried to address this by noting that for many substances, four or more criteria in DSM-5 are highly associated with the old DSM-IV diagnosis of "dependence" (Hasin et al., 2013).

The diagnosis for nicotine use disorder was aligned with the criteria for other substance use disorders and gambling disorder was added into the chapter. The latter let to the new name 'Substance-Related and Addictive Disorders' for the chapter, which was discussed extensively (Hasin et al., 2013). Some changes that were discussed among experts as the inclusion of biomarkers (Goldstein and Volkow, 2011, Kranzler and Edenberg, 2010, Martinez et al., 2007), or the inclusion of other excessive behavioural patterns such as 'exercise addiction' (Berczik et al., 2012), 'sex addiction' (hypersexual disorder) (Kafka, 2010) and 'internet gaming disorder' (Ko et al., 2013) were not included due to a lack of evidence (Hasin et al., 2013). The latter was included in section III of the DSM-5 ("a condition warranting more clinical research and experience before it might be considered for inclusion as a formal disorder").

Heavy use over time as the key criterion

While none of symptoms or diagnostic criteria listed above is a necessary or sufficient condition for substance abuse categories as defined above, and while criteria changed considerably over the past half century, there is one constant which can be seen as underlying all definitions: heavy use over time (Rehm et al., 2013a, Rehm et al., 2014).

- Some criteria are physiological consequences of heavy use of psychoactive substances over time (tolerance, withdrawal).
- Some criteria are linked to psychological consequences of heavy use over time (e.g., craving).
- Some criteria are linked to social and behavioural consequences of heavy use over time, such as "giving up important social, occupational, or recreational activities" because of the heavy use over time.
- Some criteria are linked to health or physical consequences arising from heavy use or heavy use over time (diseases such as liver cirrhosis for alcohol (Rehm et al., 2010b) or risk for death from

driving under the influence of substances[51] (Popova et al., 2007) – for an overview see (Lim et al., 2012)).

All these consequences have ”heavy use over time” as the major risk factor, but as usually for risk factors, these are probabilistic relationships (maybe with the exception of tolerance, which seems an inevitable outcome of heavy use over time). Heavy use is neither a necessary nor a sufficient condiction for negative consequences, i.e. not all heavy smokers will get lung cancer and not all patients with lung cancer are heavy smokers (for definitions and operationalization of risk factors, see (Rothman et al., 2008)).

The questions arising here are the following:

1) Are the consequences listed as criteria in current definitions inevitably linked to heavy use over time? Is there heavy use over time without consequences?
2) Can or should there be substance use disorders without heavy use over time?
3) How close is the link between heavy use over time and the current definitions of substance use disorders?

How does research support using heavy use over time as a diagnostic criterion?

Heavy use is clearly linked to consequences in the human brain, most of which will happen independently of circumstances (see (Nutt, 2012, Nutt and Nestor, 2013). There are differences by substance on neurobiology (World Health Organization, 2004), but overall, there are enough communalities to subsume the consequences of heavy use of psychoactive substances under one unifying label of ”addictive brain disorders” (Leshner, 1997, McLellan et al., 2000, Volkow et al., 2003, Baler and Volkow, 2006). Summarizing the neurocognitive effects of substance use disorders (dependence, abuse) vs. heavy use for the Dutch Medical Research Council, a group of Dutch researchers ended up concluding that based on the current literature any such distinction is impossible to make, because there are no studies on neural effects of substance dependence without prolonged heavy use (Wiers et al., 2012). Thus, the effect of prolonged heavy use on the brain appears to be at least largely overlapping if not identical with what is called ‘substance use disorders’.

How close is the link between current criteria and amount consumed? Rehm and colleagues listed a very close relationship for alcohol from the National Epidemiologic Survey on Alcohol and Related Conditions (Rehm et al., 2014). Based on ALICE RAP, we will list the relationship for different substances based on the German Epidemiological Survey of Substance Abuse (Kraus et al., 2013). There are substantial correlations between average use and number of DSM-IV criteria (see Table 1), which increase for people who had sought treatment within the last 12 months: for alcohol from 0.24/0.25 explained variation to 0.46/0.51 for dependence/dependence and abuse combined; for cannabis from 0.46/0.51 to 0.69/0.68; for cocaine and tobacco numbers in treatment were too small to allow meaningful correlations. All correlations were above 0.5 with some reaching 0.9, and separated by sex, they were even higher. Thus, level of heavy use over time and number of DSM-IV criteria correlate substantially (for even higher correlations see (Rehm et al., 2014)).

[51] The association between heavy use over time an traffic injury is less pronounced than the association between heavy use over time and chronic disease categories such as liver cirrhosis. While the majority of all alcohol-attributable mortality and burden of disease is due to heavy drinking (Rehm et al., 2013b), the same is not always true for injury and the prevention paradox may apply ((Rossow et al., 2013); generally (Rossow and Romelsjö, 2006)).

Table 1. Number of persons observed (n) and average consumption (mean and standard deviation (SD)) for cigarettes, alcohol, cannabis, and cocaine by number of DSM-IV criteria fulfilled for alcohol dependence (last year) and abuse and dependence combined - German Epidemiological Survey of Substance Abuse (ESA) (Kraus et al., 2013)

	Tobacco			Alcohol			Cannabis			Cocaine		
Number of Symptoms	Number of cigarettes/day			Pure alcohol in gram/day			Frequency of use/12 month			Frequency of use/12 month		
	N	Mean	(SD)	N	mean	(SD)	n	mean	(SD)	n	mean	(SD)
Dependence												
0	592	5.06	(8.76)	5890	8.01	(12.35)	337	17.32	(47.22)	31	4.50	(9.00)
1	493	11.06	(10.25)	1106	16.74	(18.53)	78	68.10	(79.84)	7	9.23	(12.79)
2	405	13.40	(9.55)	405	25.67	(29.49)	26	96.82	(85.32)	1	3.50	
3	300	14.90	(10.83)	149	28.98	(28.31)	18	140.13	(105.91)	3	4.37	(1.32)
4	198	16.37	(10.05)	58	54.20	(48.82)	11	153.30	(75.15)	-		
5	118	18.71	(7.53)	62	35.38	(43.65)	8	190.66	(77.39)	3	156.74	(70.87)
6	58	17.47	(9.04)	14	150.65	(178.88)	6	128.23	(95.25)	2	223.13	(66.13)
7	6	26.70	(7.35)	3	164.67	(77.01)	9	189.59	(68.89)	2	12.58	(10.76)
R^2		0.2369			0.2434			0.4596			0.8337	
Abuse/Dependence combined												
0				5833	7.88	(12.18)	319	12.11	(34.60)	31	4.50	(9.00)
1				1093	16.76	(18.62)	88	56.94	(71.31)	7	9.23	(12.79)
2				414	22.87	(21.16)	30	137.01	(96.74)	1	3.50	
3				166	28.45	(30.11)	15	113.42	(103.13)	2	3.50	(0.00)
4				82	44.43	(44.91)	12	140.58	(95.19)	1	7.50	
5				63	43.40	(53.72)	7	140.45	(64.13)	-		
6				22	60.66	(51.47)	5	149.98	(80.52)	1	7.50	
7				6	53.81	(49.04)	10	206.29	(66.30)	3	97.00	(102.88)
8				5	65.64	(64.29)	5	205.21	(62.64)	2	136.16	(33.54)
9				2	480.24	(188.85)	2	130.88	(89.57)	1	249.50	
10				1	240.05		-			-		
11				-			-			-		
R^2					0.2521			0.5148			0.8338	

Using heavy use over time as a diagnostic criterion: public health implications

How should we interpret the cases where the application of the concept ”heavy use over time” results in other conclusions than using number of criteria? From a public health point of view, there are good reasons to rely on heavy use over time. Consider the following examples: somebody who has been smoking 20 cigarettes a day over the last year, but does not qualify for nicotine dependence in DSM-IV over that period. This case seems to be relatively frequent (Rehm et al., 2013a), and based on risk for mortality and hospitalization which follows a dose-response relationship (e.g., (Baliunas et al., 2007a, Baliunas et al., 2007b)), one would clearly see 20 cigarettes as more important for starting interventions to quit or reduce smoking. Now consider some smokers, who did not smoke daily over the past year with on average less than 5 cigarettes per occasion, but qualifying for nicotine dependence. While this pattern may still incur risks, the risks are certainly considerably lower than the rsiks of somebody, who smokes 20 cigarettes but does not qualify for dependence. One may argue here, that smoking and nicotine dependence (DSM-IV) or tobacco use disorders (DSM-5) are a special case, not always included in substance use disorders (e.g., the above example of (World Health Organization, 1957), or earlier versions of DSM).

So let us consider alcohol use disorders and average level of alcohol consumption in grams. Heavy drinking has been shown to be responsible for the vast majority of alcohol-attributable harm in Europe (Rehm et al., 2013b). The dose-response curves are mostly exponential (Rehm et al., 2010a, Rehm et al., 2011, Rehm and Roerecke, 2013), leading to the following implication: the same reduction in level of consumption (e.g., 40 grams per day) leads to considerably more pronounced reductions in mortality and hospitalizations if it is taken off from a higher level of consumption than from a lower level of consumption (Rehm and Roerecke, 2013, Nutt and Rehm, 2014). For public health, it is vital to reduce consumption, especially at high levels of consumption, even if these people do not qualify for alcohol dependence or alcohol use disorders. Similarly, it is important to reduce high levels of consumption, if the people who reduce do not change their status as having an alcohol dependence or alcohol use disorder, or if they do not lower their severity on the scale based on criteria (American Psychiatric Association, 2013). Heavy drinking over time clearly is the more meaningful criterion with respect to health consequences compared to a diagnosis of alcohol dependence or alcohol use disorders. Similar arguments could be made for cannabis, but the underlying literature is much weaker and more scarce (Fischer et al., 2011).

> Heavy use over time causes the changes in the brain we currently associate with substance use disorders. It is also very closely linked to all criteria used to define such disorders in medical classification systems. Heavy use over time is easy to operationalize and has been shown to associate with mortality and morbidity outcomes of dependence or other substance use disorders better than current diagnostic criteria.

From a clinical perspective, especially in academic centres, it should be noted that though number of criteria of substance use disorders in DSM-5 designate severity, substance use per se is commonly used as an indicator of the course of the disorder (e.g., number of standard drinks per day, number of heavy drinking days, etc.) (Hasin et al., 2013). Accordingly, there is duplication between two different clinical formats: the diagnostic criteria to establish diagnosis and amounts of consumption to establish course of the disorder. Given the high correlation between heavy use and diagnosis of substance use disorders, this raises the question of the necessity of both formats.

Overall, we conclude that there is a close correlation between "heavy use over time" and the number of criteria in current classification systems, but in cases where the two concepts do not agree with each other, heavy use over time seems to be the more relevant for mortality and morbidity, and thus for public health. Individuals may value other dimensions such as social outcomes, but heavy use over time has been shown to be strongly associated with these outcomes as well (Rehm et al., 2013a). Heavy use over time would also be feasible from a clinical perspective, as patterns of use (doses, frequency) are measurable and can be properly followed for most substances (e.g., alcohol with AUDIT C, (Reinert and Allen, 2007)). It should be noted, however, that we may have to develop standardized measures for some substances, which should be a priority in future research. Currently, for many substances heavy use is entirely defined via frequency.

Application to behavioural disorders such as gambling

With respect to gambling similar changes in the concept as described above for substance use disorders were observable. In DSM-III pathological gambling was introduced as a disorder of impulse control (American Psychiatric Association, 1980), suggesting an intrapersonal difficulty to control one's actions. In the last years similarities to the phenomenon of substance use disorders were discussed (Petry, 2006): similarities in the neurological activation of the reward system (Reuter et al., 2005), genetic similarities (Slutske et al., 2000) as well as similarities of specific symptoms such as craving and tolerance (Potenza et al., 2001). These arguments finally let to the inclusion of gambling disorder into the category of substance-related and addictive disorders in DSM-5 as described above (Hasin et al., 2013). Furthermore, as for substance use disorders, a clear relationship between frequency of gambling and the number of symptoms is observable (Sassen et al., 2011). In sum, even though further research has to be done, we would suggest to include gambling under the category of "addictive disorders", which can also be well defined by heavy use over time.

> What is currently defined as addictive gambling disorder in DSM-5 can be captured by heavy gambling over time.

Further advantages and challenges

What is currently labelled as "substance use disorder" seems to be well described by the concept of heavy use over time. So far, we have not defined the thresholds for heavy use over time for different purposes. This section will discuss setting thresholds and implications for stigma as well as different health care sectors.

As indicated, the level of heavy use over time has a dose-response relationship to relevant public health outcomes such as mortality or morbity. As the relationship is exponentially dose-dependent, it is not necessary to define thresholds, and we can work with continuous concepts. For individuals, in principle, the same applies and it has been suggested that people should "know their number" with respect to alcohol consumption (i.e., grams consumed per day) as an important individual-level strategy to reduce risks (Nutt and Rehm, 2014). However, treatment systems need thresholds, if only for defining and reimbursing interventions.

Looking at the International Classification of Diseases of the World Health Organization, it is not uncommon to define diseases from a threshold of a continuous dimension. Hypertension is a prime example of a disease defined by an arbitrary threshold of blood pressure (World Health Organization, 1992). Several similarities exist with respect to level of use over time: blood pressure level is a continuum, it is related to human behaviour (i.e., to physical activity, alcohol consumption, salt intake) and it can vary from day to day. This may entail problems

with measurement. For instance, repeated measures have to be applied in treating high blood pressure (often at the same visit, but also over different visits to primary and specialized care). Patients are encouraged to measure their blood pressure regularly outside of visits to the health care system, and in the interview at the primary care physician different behaviours are explored with subsequent advice about behaviour change.

Basically, the same strategy could be applied to alcohol or tobacco consumption. Regular exploration of current use level (if possible with the exploration of biomarkers) at each visit to the general health care system, encouragement to keep track of and reduce consumption levels, and exploration of different ways to reduce use levels (e.g., by motivational interviewing (Rollnick and Miller, 1995) or brief advice (Heather, 2004)). If such interventions fail, pharmacotherapy could be explored or a referral to the specialized treatment system.

Many of the current pharmacotherapies for heavy use over time have been shown to be successfully applied at the primary care level, from abstinence-oriented therapies to interventions aiming to reduce consumption levels, to substitution therapies (e.g., for heroin dependence). Aligning the definitions of heavy use with those used in other fields of medicine and aligning the treatment services provided for individuals suffering from these disorders with those provided in other fields of medicine is an important step in finalizing the move towards integrating these disorders into routine medical practice. And such an integration seems necessary, as the treatment gap for people with substance use disorders is large (Alonso et al., 2004, Kohn et al., 2004, Rehm et al., 2012).

Categorical classifications clearly based on continuous variables have the advantage, that people with values above the thresholds are harder to stigmatize, as all people can be placed on the same continuum (Schomerus et al., 2013). The underlying continuum of the definitory variable is one of the reasons why people with hypertension are not as stigmatized as people with alcohol or drug dependence (Schomerus et al., 2011), even though their disease is clearly linked to behaviours which could be characterised as being based on personal traits.

Finally, in the legal system, 'substance use disorders' are not the main concept used. In this system, for legal substances, heavy use over time is irrelevant, and only in special situations (traffic, working heavy machinery) use is restricted or forbidden. For illegal substances, use is often categorically forbidden, and even if not, there is no distinction between people who used heavily over time and others. Such a distinction would help, however, to create more appropriate interventions such as therapeutic interventions instead of punishment (Hora et al., 1999, Belenko, 1998). In sum, in various fields where substance used disorders play a role, the new definition via heavy use over time seems applicable and in many cases promises to improve identification of cases relevant for intervention.

> Defining substance use disorders as heavy use over time promises to better align treatment with standard medical treatments and could play a role in reducing stigma.

Further research needed

In order to substantiate using heavy use over time as a defining diagnostic criterion, additional research is required. This new research should focus mainly of establishing standard doses across substances according to weight (e.g., grams of cocaine used), concentration (e.g., THC-concentration in cannabis) and methods of use (e.g., swallowing, snorting or injecting opioids). As heavy use as a continuous concept, by definition, requires quantitative descriptions, the goal is to achieve the equivalent of TAC (Total Alcohol Consumption) or "pack years" (as a

measure of total nicotine consumed) across substances. Clearly there are substantial challenges in many cases of illegal substances due to bias of report and adulteration of substances, and these may be solved by new biomarkers. Despite this, establishing validated standardized tools which would take into account frequency and dose should be a priority for research in the field of substance use. For gambling and other behavioural addictions, equivalent measures need to be developed.

In addition, prospective studies evaluating the clinical utility of heavy use over time as a diagnostic criterion are needed. This should include evaluating common comorbidities (for example psychiatric disorders) according to patterns of use, matching treatments according to patterns of use and evaluating clinical outcomes of treatment in terms of changes in patterns of use. If indeed, one of the major aims in defining addiction is diagnosis and treatment, the utility of using heavy use over time as a definitory criterion should be reflected in such clinical studies.

Conclusions

The current medical classification systems for substance use disorders are based on a mixture of diagnostic criteria and consequences, which historically evolved. Moreover, they are essentially categorical systems, even though the new DSM-5 introduced some gradient for severity. For public health purposes, the medical classification systems have been replaces by a continuous concept of heavy use over time as the main risk factor. But the concept of heavy use over time promises to also work in other context such as the health care system. As a continuous system it may reduce stigmatization and may also help shift interventions into primary care, thus reducing the treatment gap currently experienced.

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CHAPTER 11. IMAGES OF FUTURE GOVERNANCE OF ADDICTIONS

Jan Erik Karlsen

Summary

Background: Two expert groups comprising researchers and former drug users were invited to provide a reframing of how scientific, technological, and social advancements might affect our understanding of not only addictions and lifestyles but also the policy measures connected to emerging, major societal obstacles in Europe over the next 20+ years. **Aims:** The aim of this chapter is to explore various images and trajectories of future addiction and drugs governance models in Europe, taking into account three different time spans (short, medium and long term). **Methods:** A combined approach using in-situ creativity techniques was mixed with well-established foresighting tools and gap analyses and used in two separate one-day electronic foresight expert workshops that generated narratives about the interplay between the future drug policy and the society at large. **Results:** This chapter describes and analyses policy documents on and assessments of EU drugs strategy and action plans. These are reframed as 'responsible, practical and possible futures' and related to what the dedicated domain experts envisage as the premises and the profile of future drugs and addictions policies. **Conclusions:** Reflecting on the images proposed by the addictions expert groups, we argue in this chapter that the next 20+ years will welcome an addictions and drugs governance that coalesces evidential research and is inclusive of welfare and well-being values.

Introduction

The aim of this chapter is mainly as an intellectual endeavour: exploring various scenarios and trajectories of future addiction and drugs governance models in Europe, taking into account three different time spans--short term (2016), medium term (2020) and long term (2030+). The basic assumption is that the future is open and contentious and must be filled with our similes. The intention is neither prediction nor falsification; rather, it is about thinking and crafting robust and rigorous images of the future built on the perceptual and creative capacity of domain experts (Karlsen 2014). Hopefully, the chapter adds to our understanding of how to reframe the future European drugs and addiction scene.

Core concepts

Foresight: a general term for various theories, models, techniques, methods and tools used to systematize and develop robust assumptions about future
Scenarios: stories that consider «what if..?» questions. Whereas forecasts focus on probabilities, scenarios consider a range of plausible and/or preferable futures and how these could emerge from the realities of today.
Group Support Systems (GSS): a class of electronic meeting systems, a collaboration technology designed to support (expert) meetings and group work.
Nominal Group Technique (NGT): a group process involving problem identification, solution generation, and decision making.

Yes, there will be futures!

In the Foreword of the publication 'Drugs and the Future', Sir David King – Chief Scientific Advisor to the UK Government, wrote (Nutt et al., 2007: xi):

> Over the next 20 years, drugs for mental health treatments are likely to be important to a growing proportion of the population, and legal and illegal so-called 'recreational' drugs will continue to have a significant impact on society at every level.

His view was that the foresight project, which was the backbone of the book, 'provides us with the evidence for what future science may allow us to do in this area and highlights the key opportunities and challenges of the next 20 years' (ibid.)

As a parallel to the foresight focus of the book mentioned, but on a much more modest scale, this chapter will address future images on the *EU drugs policy and governance*, building on the knowledge frontier reached as of today.

Foresights

Foresight comprises projections[52] or explorations of different futures and alternatives, based on insights from today's knowledge and expectations of the future. Many foresights use expert-qualified estimates of, for instance, societal development. The process of foresight also includes the understanding of the opportunities and possibilities of a social system or an organisational device, however uncertain, as well as the pitfalls. Therefore the foresight process is a way to define the system and a constituting of the field with regards to stakeholders, boundaries, possible consequences and impacts. It is also – if the primary goals and objectives are met – a roadmap for choosing the desired way and balance to attain the potential benefits and to minimize or exclude possible negative outcomes for the stakeholders.

The success of a foresight project is in the outcome; that is, the implementation of foresight knowledge in policies, strategies and actions. This is surely also the case when it comes to the drafting and implementation of a drugs strategy for the EU region, presently comprising 27 member states and 500 million citizens.

[52] There is a dispute if projections alone (forecasting) are valid parts of foresight (Georghiou et al., 2008: 8, 15).

It is evident that there is also a gap between the complexity of future options and pathways, which is addressed in foresight studies and the analytical tools applied to map the complexity. And – there is no consensus on an appropriate methodology balance between the qualitative and quantitative approaches. The lack of a common and approved methodology emerges, at least partly from the fact that the inherent ontological and epistemic characteristics of qualitative and quantitative methods differ when it comes to capturing the complexity of issues addressed in foresight exercises (Karlsen et al., 2010).

Besides, although most foresights apply an operational definition of time, not a strict linear one, it is still a chronological concept. The *past* is seen as something foregone, having no starting point but bordering the *present,* which in its turn is defined as the state we have now and actually live in. *Now* is something that is there all the time, pushing the *future* to a state which is not actually here, other than in our minds. However, the future is constantly coming towards us, although it is reconstructed in socially recognizable time horizons and temporalities as 'time stretching' (Tsoukas & Hatch 2001), 'self-conscious reflexivity' or 'interpreted feedback' (Weick & Sutcliffe 2001; Bell 2002), 'mental time travelling' (Cunha 2002; Suddendorf & Corballis 2007), or as 'short, medium and long-term' perspectives (Fuller & Loogma 2009). Arguably, to disregard the plurality of time conceptions would be devastating both to generic foresight methodology and to the particular foresight study (Karlsen & Karlsen 2013).

It is not credible to offer evidence-based knowledge on the futures. As such, futures are empty, not filled with substance and, thus, we cannot (definitely) know what will be there. Neither the ontological nor the epistemological basis meet the core scientific criteria of 'falsification'. The best we can offer is images of plausible, normative and mind-boggling futures. This chapter deals with such images, of which the EU drugs strategies and action plans represent 'food-for-creative-thought'.

Statements

- Future is open and debatable
- Addiction governance capacity- building is needed in Europe

Methods

A GSS named «E-lab»

Significant input to this chapter emerges from two expert group workshops addressing the future of addictions and lifestyles. The first workshop invited a mixed group of ten Scandinavian researchers and former drug users in November 2010 to discuss drug-related policy issues in the Nordic region over the next 20+ years (Karlsen & Sagvaag 2011). The second one invited 17 European and three international drug disorder experts; it occurred in Barcelona in May 2011 and addressed images of addictions and lifestyles in Europe 2030+ (Karlsen et al., 2013). Both workshops link to the ALICE RAP project and both applied an electronic platform (the «E-lab»[53]) combining an in-situ idea generation and selected foresight

[53] The E-lab is developed and held by International Research Institute of Stavanger, Norway (c.f. Karlsen & Karlsen 2007).

tools to elicit ideas and expert knowledge about the future addictions scene. In short, the «E-lab» electronic laboratory is a group support system (GSS) for efficient expert meetings and workshops, initially developed and tested during the early years of the 2000s. Arguably well suited for foresight expert exercises, it is based on a standard GSS platform combined with the design of the Nominal Group Technique (NGT), originally developed by Delbecq, Van de Ven and Gustafson (1975). The E-lab consists of a methodology database and a set of laptops in a local area network, most often arranged at a horseshoe-shaped table in a meeting room. An experienced facilitator and a moderator guide the introduction to and use of the technical platform, the domain objectives, the agenda topics and the time schedule. It requires a careful peer selection of experts, with tools tailored to the issue and often implying a jury for assessing the primary output from the expert group assignments (Karlsen 2014). In foresights, such as the two workshops mentioned, the need is prominent to optimise the time and the number of experts allotted. The E-lab helps the experts to generate and deliver appropriate and large amounts of data, both qualitative and quantitative, within controlled time and cost budgets.

Scenarios – the 'gold standard' of foresighting

Although there is an ongoing debate about the methodological robustness of scenarios, they are deemed by most foresighters to be an appropriate approach for engaging constructively with unpredictable uncertainty (Van der Heijden 2000; Martelli 2001; van't Klooster & van Asselt 2006; van Asselt et al., 2010; Sarpong 2011; Amer et al., 2013). The approach used by the experts is typical of the scenario technique. Relevant drivers that can have an impact on drugs policy, for example economic adaptability, scientific progress, novel regulations, opinions and attitudes amongst people, etc., were put together in brainstorming exercises. The two addictions expert groups identified challenges, opportunities and unmatched uncertainties relating to drug and addictions policies at the societal (regional) level. Through a step-wise procedure, underlying dimensions of a 2×2 scenario grid or a scenario frame were agreed.

In this chapter we address the primary input from the two expert workshops and from complementary open sources by introducing three different temporal categories. The first, «Responsible Futures», focus on *past* experiences in which lessons have been learned from where headway conducive to drugs policy was made. The second, «Practical Futures», deals with *present* strategies and action plans in a medium-term perspective, while the third, «Possible Futures», works out European visions and images for a sustainable, inclusive and resilient longer-term *future* (OMC 2013)[54].

Results

This section describes and analyses policy documents and expert assessments on EU drugs strategy and action plans. It additionally draws on information from two addiction expert workshops (Karlsen & Sagvaag 2011; Karlsen, Gual & Anderson 2013). As mentioned earlier, the subsequent results are collated and reframed and related to what we envisage as the premises and the profile of future drugs and addictions policies. The results' section applies a threefold framework that pays equal attention to a narrative capacity, a collective intelligence and a capacity to reframe. This is what Miller (2007) labels «Futures literacy» and claims must be the backbone of any foresight exercise.

[54] These categories are inspired by The Report of the Oxford Martin Commission for Future Generations, "Now for the Long Term", October 2013; (http://www.oxfordmartin.ox.ac.uk/commission/,accessed 17 October 2013).

A Scheme for a Futures Literacy of European Governance of Addiction

- Learn from the history
- Plan for the near future
- Imagine the longer term

Responsible Futures: Lessons from the near past

The first European plan to combat drugs was issued in 1990, followed by the «Horizontal working party on drugs» in 1997. Then the first EU drugs strategy appeared in 2000, followed by a revised strategy for 2005-2012 (EMCDDA 2013). In his article «It's Time to Count the Costs, Europe! », Sarosi (2012) claims that[55]:

> The EU has no common drug policy: That is essentially the province of individual member states; so drug strategy always represents a delicate consensus among members. Part of this consensus involves common support for an evidence-based and balanced approach…-

It should be no secret that drugs policy lies within the competence of individual member states; this follows from the 'principle of subsidiarity'. So, what are the lessons from the near past? The EU drugs strategy and action plans (2005-2012) have been deemed successful insofar only as they have reduced drug-related harm such as HIV/AIDS infections and drug-related deaths, mostly due to the growing availability of, and access to, harm reduction services, according to the report written by a group of RAND assessors (Culley et al., 2012a)[56].

> We do not have evidence for what would have happened to supply and demand for illicit drugs in the EU in the absence of the Strategy. There is no overwhelming evidence that the Strategy has or has not had an impact on the drugs situation in the EU.

Apparently, the assessment report is rather discouraging news to the EU drugs policy. An evaluation of the drugs strategy (2005-2012) by the EU Council (2012:3) also stated that drug use in the EU appears to be relatively stable, and the fundamental challenges remain the same as previously. Drug use at the EU level had remained high, despite stabilisation or a small decline of the use of some illicit drugs. The RAND assessment points at similar findings (Culley et al., 2012a):

> There appears to have been little change in the overall demand for and availability of illicit drugs in the EU, though trends and patterns of supply and demand have evolved, posing new research and policy challenges.

The RAND evaluators claim that supply reduction interventions have had no measurable impact; and yet, European member states spend much more on supply reduction than on all

[55] http://drogriporter.hu/en/eu_evaluation, accessed 3 Dec 2013.
[56] http://www.rand.org/pubs/periodicals/health-quarterly/issues/v2/n2/15.html, accessed 3 Dec 2013.

drug-related public health and social interventions combined. This should be a cause for concern and a reason to consider a radical shift in drug policies, Sarosi (2012) claims:

> I think the conclusions of the [EU] Council do not appropriately address the real challenge, which is: Why do we still rely on supply reduction measures which, over decades, have not resulted in any measurable impact? Consumption patterns in the drug market are changing, but the supply of drugs is stable, as are their price and availability.

Concurrently the EU Council draws substantive conclusions from the assessment of the past EU drug strategy, agreeing that «the EU needs an EU drugs strategy for 2013-2020 as the political framework in the field of drugs», pointing out that[57]:

> ,… the new strategy should take on board new approaches and address new challenges which have been identified in recent years, including those related to new or ongoing threats to the health and safety of EU citizens, especially the:
>
> a) poly-drug use, including the combination of illicit drugs and alcohol
> b) rapid spread of new psychoactive substances
> c) ensuring access to and addressing the misuse of prescribed controlled medication
> d) dynamics in the drug markets, including the use of the internet as a facilitator for the distribution of illicit drugs
> e) diversion of precursors used in the illicit manufacture of drugs
> f) quality of demand reduction services
> g) high incidence of blood borne diseases, especially HCV, among injecting drug users and potential risks of outbreaks of HIV epidemics and other blood borne infections related to injecting drugs use.

Thus, lessons from the past underscore that «drug policy is mainly the competence of the EU Member states», as CoEU (2012) puts it. Several shaping factors have been hampering positive change during the near past. However, the RAND assessment team points out that the drugs strategy and its actions plans have functioned as a learning platform to many of the EU member states, such that there has been an observable convergence in the formulation and adoption of national drugs policies and strategies, often referring to the EU strategy as their model, applying similar structure and a time line for actions, and institutionalising evaluations of the national drugs strategies and policy documents as a regular practice (Culley et al., 2012a).

Practical Futures: Strategy for the proximate prospects

In its recommendations on the EU Drugs Strategy (2013-2020), EU (2012: para. 4) states that:

> By 2020, the priorities and actions in the field of illicit drugs, encouraged and coordinated through this EU Drugs Strategy, should have achieved an overall impact on key aspects of the EU drug situation. They shall ensure a high level of human health protection, social stability and security, through a coherent, effective and

[57] http://register.consilium.europa.eu/pdf/en/12/st10/st10231.en12.pdf, accessed 3 December 2013.

> efficient implementation of measures, interventions and approaches in drug demand and drug supply reduction at national, EU and international level, and by minimising potential unintended negative consequences associated with the implementation of these actions.

This near- and medium-term future strategy (2013-2020) and the initial short-term action plan for 2013-2016 direct collective measures towards both the European and the international drug scenes (EMCDDA 2013). As such, two consecutive, four-year action plans will provide the 'road map' for the EU drug and addictions policy onto 2020. The action plans will convert the strategic main concerns and priorities into explicit measures with a timeline, responsible parties, indicators and evaluation tools. They will – so to speak – be the coordinates to a 'GPS' on EU drugs policy implementation.

Although they do not in themselves impose legal obligations, the strategy and plans promote a shared framework, including objectives, priorities, actions and metrics for assessing policy and governance performance. Besides highlighting the ongoing 'fight' to reduce both supply and demand of drugs, the strategy and action plan add a new dimension to the policy and measures taken (CoEU 2013: 2):

> It also aims to reduce the health and social risks and harms caused by drugs through a strategic approach that supports and complements national policies, that provides a framework for coordinated and joint actions and that forms the basis and political framework for EU external cooperation in this field.

This is the first time EU incorporates the impact on health and social risks and harms due to the use of illicit drugs as a policy objective and converts the main objective into three sub-goals, nine main actions all with a timetable, responsible party, indicators and data collection and assessments instruments attached to it. The involvement of civil society and the scientific community is also accentuated, including the participation of and input from drug users, clients of drug-related services and young people in the development and implementation of the drug-policy making processes.

However, critical voices have been raised about the effectiveness of EU supply reduction measures in achieving its policy objective in this field. EU has failed to adopt innovative alternative policies in the 2013-2016 Action Plan, an expert group claims. These experts also expressed strong concerns about the assessment process and the list of indicators proposed in the Action Plan (IDPC 2013:1).

Possible Futures: Agenda for the longer term

The two expert workshops identified and discussed key drivers of change and considered how certain megatrends might impact on the future drug and addictions scene. The time line was set to slightly less than a generation ahead, to 2030+. The future images were subsequently constructed by using a scenario method. Emerging from extensive expert workshop discussions, two underpinning variables (deviance and sanctions) were nominated as being critical in the context of addictions and lifestyles. These focal variables and their embedded uncertainties form the axes of the scenario. Translating them into a 2×2 matrix (cf. Figure 1 below) allows us to demonstrate independent alternatives that reflect substantial outcomes along the acknowledged uncertainties. As such, the four images will represent different

perspectives and elaborate different aspects of the drugs and addictions field. The two main variables and uncertainties regarding trends of addictions and lifestyles were posed as questions:

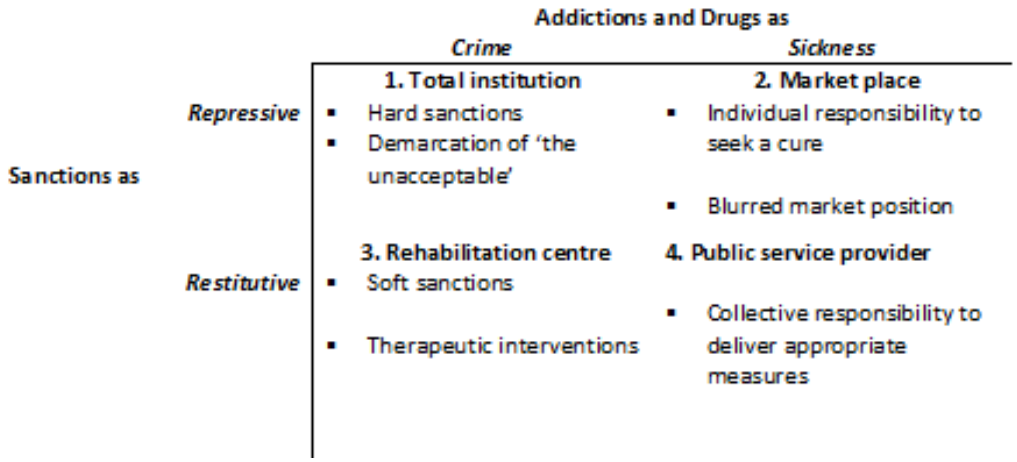
1. What kind of *deviance*? Will addictions be seen and classified as a *criminal offense* (to be punished) or a *sickness* (to be cured)?
2. What kind of *sanctions*? Will society lean towards *repressive* (hard) or *restitutive* (soft) sanctions?

Underpinning variables

- Addiction seen as crime or sickness?
- Sanctions given as repressive or restitutive social control measures?

The first question regards the underlying values reflecting at the one end a priority to treat addictions and substance use disorder as an offense to society and, thus, to be punished, and at the other end a priority to perceive it as a sickness on an equal footing to other health problems that will need to be cured. This axis permits us to envisage fundamental shifts in societal values as to where the balance of responsibility and behavioural modes lies. Such a variable reflects the variety of current opposing opinions within the European Union. The second question gives us an axis of response, describing the society's reaction to addictions and drugs in terms of sanctions. Should sanctions be legitimised by a judicial, repressive or a restitutive logic? At one extreme, all sanctions will emphasize punishment and the loss of freedom, and at the other extreme, the seamless restoration of the addict's autonomy and well-being is accentuated. The punishment regime is rather reactive and short-term mitigating, while the restoration response is based on the assumption that change will need a longer time perspective and, consequently, the response set is based on anticipation and preparedness.

Figure 1. The Addictions and Drugs Governance Scenario 2030+



The scenario depicts four addictions and drugs policy options ranging from a total institution-like regime or a semi-market locus to 'rehabs' or broader public provisions. This kind of reasoning is leaning heavily on the analysis and vocabulary of Durkheim's (1997) classical study of the division of labour in society. Both deviance (addicted behaviour) and sanctions (control

measures) are connected to different types of solidarity and integration. Sanctions may refer to the social control processes that regulate individual and group behaviour, which lead to conformity to, and compliance with, the rules of the society or its social groups. Deviance describes actions or behaviours that violate social norms, including formally-enacted rules (e.g., crime), as well as informal violations of social norms (e.g., rejecting folkways and mores). In societies displaying mechanical solidarity, its cohesion and integration emerge from the homogeneity of individuals. People feel connected through similar activities and lifestyles. Its opposite is the organic solidarity that develops from specialisation and complementarities; people perform different tasks and hold different values and interests, but they depend on each other to execute their particular tasks and reach their personal objectives. This form of social solidarity, which may reconcile individualism with a respect for and obligation towards others, characterises modern societies. The collective sense of right and wrong become less absolute, allowing for a multitude of individual expressions of belief and other sentiments.

Most of Europe has recognized that the responsible use of cannabis by an adult, in their home, is not part of a country's crime problem. The repressive sanction regime of the US, seeing drug use as an offense to be repressed, has been deemed a failure by the high-level Global Commission on Drug Policy (2012); this 'War on drugs' has been lost. Sarosi (2012), referring to the European drug laws enforcement, claims:

> Of course, one may say that we do not know what would have happened without current repressive policies, and this is true. But if we completely reject the possibility of alternative regulatory options, in assessing current policies, how can we ever know? It is a black-and-white fallacy to believe that there are only two options: current supply reduction interventions, on the one hand, or complete lack of any regulations, on the other.

Apparently, Europe maintains a variety of law enforcement regimes, varying from the more repressive (e.g., Norway) systems to the restitutive, liberal and public-health-orientated national drugs strategy of Portugal[58]. The Pompidou Group (2011:33) promotes what they label 'quasi coerced treatment', claiming that alternatives to imprisonment are more cost-effective and have fewer adverse effects:

> According to the evidence collected, 'quasi-coerced' treatment can be effective in reducing substance use, risk and offending behaviours, and improve social integration.

Such treatment may be as effective as voluntary treatment, if offered on an equal footing and received in the same treatment services (ibid.).

Obviously, it is not possible to do a rigorous testing of a scenario; futures are empty except for our thoughts about them. The kind of four-fold world depicted in Figure 1 is not loaded with details on each image. Rather, the images are simplifications of futures, i.e., ideal types in the vocabulary of Weber (1946). As such they are neither normative descriptions of preferred futures nor images of how the EU drug scene most probably will look like in 2030+. They serve

[58] It is difficult to make robust comparisons between countries, but data on reported drug law offences revealed upward trends in 18 countries and a stabilisation or an overall decline in eleven countries over the period reported (for most countries 2001-2009),
cf.: (http://www.emcdda.europa.eu/online/annual-report/2011/responding/7).

as conceptual devices highlighting the crossroads of the underlying positions on sanction regimes and attitudes towards addictions. However, scenarios must be plausible if they are to command respect as a working tool and guidance for policy makers. Despite being ideal types, none of the four images was deemed non-plausible. However, in the eyes of the expert groups, they were not equally preferable: a mixture of sanctions and a differentiation of views on how addictions and drug use should be characterised was pointed out as a pathway to sustainable future policy. One major characteristic emerged: society needs a focus both on anticipation and resilience when pursuing a drugs policy for the futures. Wildavsky (1991) contrasted resilience with anticipation. He holds that anticipation strategies work best for risks (e.g., substance use disorders) that can be predicted and are well understood. When knowledge regarding the threat is lacking (e.g., new drugs or emerging non-substance addictions) resilience is a better solution (Comfort et al., 2001).

Discussion

Credos for drugs policy

Several stakeholders have voiced their support to reinforce the new EU strategy on certain issues. In 2011 the Council of Europe's Pompidou Group issued guidance to drugs policy makers, pointing out the dysfunctional split between licit and illicit substance abuse (2011:6):

> It is acknowledged that societies are finding it increasingly hard to deal with the phenomenon of addictions, whether dependency on legal and illegal drugs or licit substances, like alcohol and nicotine, addiction to gambling, the Internet or electronic games, or eating disorders. Evidence is coming to light that, with regard to each of these categories, the receptor and neuro-transmitter systems in our brains do not function differently, as the different policies and approaches to the different areas of addiction would tend to imply. This suggests that problems related to drugs need to be tackled in the wider context of addictions.

The House of Lords' EU Committee in UK (2012) invited written and oral submissions on what had been achieved by the past strategy and what should come next. They stated that the past strategy had been too indistinct to be effective and recommended the new strategy should concentrate on three areas where the EU could make a difference: coordinate the fight against drug trafficking, concentrate on information sharing to improve mutual learning, and use the EU's public health obligations to further the inclusion of harm reduction measures in the national policies of the member states. Furthermore, the British government (Henley 2012) emphasised that a public health orientation should focus not just on harm reduction measures but also on 'sustained recovery'. The Civil Society Forum on Drugs (2012) also advocated for more effective drug policies and listed nine general principles and 16 recommendations for the new EU strategy, pointing out that drug policies and practices must be balanced, integrated, evidence based and focused on public health (Pike 2012:8).

The 2005-2012 EU strategy and action plans used the term 'drug problem' throughout the whole period. The new medium-term strategy plan has introduced the term 'drug phenomenon' as a substitute to the prior term, indicating that drug use and addictions has a wider connotation than only being a problem and, thus, has a policy gap to be closed. MacGregor (2012a:434) suggests that the way forward is to develop more wide-ranging and nuanced responses to the variety of different substances available, 'which are used in different ways by different people in different situations and at different times'. She also raises the

more impertinent question as to why we should have European strategies on drugs, alcohol and tobacco at all? Within the EU, according to the principle of subsidiarity, decisions related to drugs policy should be taken at the lowest level possible consistent with effective policy and practice. So one could leave it to each individual country to do what it wants in this field, the author claims. When assessing the governance of UK drug policy over 30 years, MacGregor (2012b:28) argues that… 'piecemeal reform to processes will not in the end make much difference,… Incremental development does not lead to a change in the overall paradigm but works within it'.

The view of MacGregor is contrary to the new, medium-term EU drugs strategy (2013-2020), which not only assumes that a common framework is needed to improve the well-known drugs situation but also proclaims responses to new challenges in the drugs market, calls for a 'balanced and integrated and evidence-based approach to the drugs phenomenon', and raises the ambition to implement ideas of policy coherence between drugs demand reduction policies and broader health, social and justice policies. However, the new strategy does not go as far as MacGregor indicates to also include licit substances (e.g., alcohol, tobacco, prescribed/over-the-counter medicines) or addictive behaviours (e.g., gambling, internet gaming) into the equation.

Conclusions for policy

It is hard to find signs of a step change in EU strategy – rather, we find a 'business-as-usual' proscription for the medium-range future. Conversely, the new EU drugs strategy gives a stronger signal on the need for prolonged and coordinated change than before. In times when austerity, financial and social crises riddle the minds of EU leaders and the public, drugs policies might not have top priority? As MacGregor (2012a:429) puts it:

> But as cuts in expenditure on drugs services are being implemented in a number of countries, it could be argued that this is the very time to discuss drugs policies, since ineffective criminal justice and supply side interventions can be wasteful of scarce resources.

However, recent advancements include new medications, behavioural interventions, whole-patient treatment models and approaches to prevention. Such progress indicates better tools and added options to recovery for individual users, families and communities. Thus, we have to look beyond the 2020 time line offered in the new EU strategy. The two expert groups took a longer view on the policy challenges. Looking back from 2030+ to today, they found several of the forerunners of these possible futures already embedded in the prevailing EU drugs strategy and policies, e.g.: the rapid increase in number of new psychoactive substances becoming available on the drug market, the combined use of illicit drugs and alcohol, the misuse of prescription medicines, the 'legal highs' phenomenon, etc. Most of these forerunners, the gaps in capacity building across the EU and the need for evidence-based drugs governance were documented at length in the RAND assessment technical report (Culley et al., 2012 b). This calls for reframing the vision, the strategy and the coordinated actions of Europe in the field of addictions and drugs disorder policy. Besides, the future will plausibly bring more of everything proposed in the Figure 1 scenario: a mixture and selection of repressive (against drug trafficking) and restitutive (against possession for own use) legal and social sanctions, as well as ideas and opinions as to whether all aspects of the drug phenomenon should best be seen as an offense to be punished or as a health challenge to be met by proper means.

Take home messages

Addictions will at all times be harmful, not only to health, but also to well-being, social values, justice and the welfare of present and future society.

Addictions will always persist, but the latest research claims that there is hope, and recovery is possible.

Large-scale drugs strategy and policy implementation call for a longer term perspective, policy coherence and evidence based approaches.

Conflict of Interest Statement

Jan Erik Karlsen has no conflict of interests to declare.

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