

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/40683505>

# Illicit drugs policy through the lens of regulation

Article *in* The International journal on drug policy · December 2009

DOI: 10.1016/j.drugpo.2009.11.002 · Source: PubMed

---

CITATIONS

12

---

READS

253

1 author:

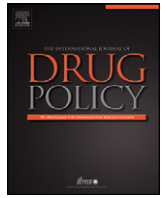


[Alison Ritter](#)

UNSW Australia

158 PUBLICATIONS 1,681 CITATIONS

SEE PROFILE



## Policy Analysis

## Illicit drugs policy through the lens of regulation

Alison Ritter<sup>a,b,\*</sup><sup>a</sup> Drug Policy Modelling Program, UNSW, Australia<sup>b</sup> Regulatory Institutions Network, The ANU, Australia

## ARTICLE INFO

## Article history:

Received 23 May 2009

Received in revised form

14 September 2009

Accepted 8 November 2009

## Keywords:

Regulation

Policy

Self-regulation

Market regulation

Governance

## ABSTRACT

The application of regulatory theory to the problem of illicit drugs has generally been thought about only in terms of 'command and control'. The international treaties governing global illicit drug control and the use of law enforcement to dissuade and punish offenders have been primary strategies. In this paper I explore the application of other aspects of regulatory theory to illicit drugs—primarily self-regulation and market regulation. There has been an overreliance on strategies from the top of the regulatory pyramid. Two other regulatory strategies – self-regulation and market regulation – can be applied to illicit drugs. Self-regulation, driven by the proactive support of consumer groups may reduce drug-related harms. Market strategies such as pill-testing can change consumer preferences and encourage alternate seller behaviour. Regulatory theory is also concerned with partnerships between the state and third parties: strategies in these areas include partnerships between police and pharmacies regarding sale of potential precursor chemicals. Regulatory theory and practice is a rich and well-developed field in the social sciences. I argue that governments should consider the full array of regulatory strategies. Using regulatory theory provides a rationale and justification to strategies that are currently at the whim of politics, such as funding for user groups. The greater application of regulatory approaches may produce more flexible and structured illicit drug policies.

© 2009 Elsevier B.V. All rights reserved.

## Introduction

This paper examines regulatory theory and how it can be used both as an explanatory framework for illicit drug interventions and as an opportunity to explore alternate drug policy interventions. Regulatory theory can provide a coherent framework and rationale for certain government actions, such as self-regulation or market regulation, that currently occur on an ad hoc basis which leaves them vulnerable to political whim. In this paper, I describe the regulatory theory, and examine three aspects as they apply to illicit drugs: self-regulation, market regulation, and harnessing non-state actors. Examples of interventions consistent with the theory are provided and the paper concludes with exploration of other interventions that are consistent with regulatory theory but yet to receive much government attention.

The regulatory theory described herein comes from socio-legal and criminology fields, as reflected in the work of Braithwaite, Grabosky, Wood and others (Ayles & Braithwaite, 1992; Braithwaite & Drahos, 2000; Braithwaite, Healy, & Dwan, 2005; Grabosky

& Braithwaite, 1986, 1993; Gunningham & Grabosky, 1998; Mazerolle & Ransley, 2005; Shearing, 2006; Wood & Dupont, 2006). The application of this regulatory approach has spanned tax law, criminal justice interventions, occupational health and safety, and policing and security. In the narrowest sense, regulation is the strategies and actions of government to steer the economy and to govern through rules. The purpose of regulation is the abatement or control of risks to society and to protect the public good (Braithwaite et al., 2005). Much regulation scholarship especially that defined from this narrow perspective has focussed on its role in shaping market outcomes, and the use of economic instruments, such as taxes and charges, subsidies and exemptions, tradeable permits, and advertising codes.

Regulatory theory arose during a time of changing perspectives on the role of government, in addition to globalisation and the decline of the welfare state. The new regulatory state has been characterised by privatisation, and the notion of the role of the state as the 'purchaser' of services, and non-state actors as 'providers'. An increased reliance on markets and market principles, alongside increased investment in state regulation of these privatised services/resources has occurred. These developments were consistent with the changing role of government: less rowing more steering (Osborne & Gaebler, 1992).

These changes in the role of government and the narrow definition of regulation have not been without criticism, notably

\* Correspondence address: Drug Policy Modelling Program, National Drug and Alcohol Research Centre, University of NSW, Sydney, NSW, 2052, Australia.  
Tel.: +61 2 9385 0236; fax: +61 2 9385 0222.

E-mail address: [Alison.ritter@unsw.edu.au](mailto:Alison.ritter@unsw.edu.au).

in arguments for democracy and the empowerment of citizens (Denhardt & Denhardt, 2000). Consistent with these criticisms, over and above focussing strictly on the role of the state, most regulation scholars take a much broader definition of regulation, as ‘steering the flow of events’ (Braithwaite et al., 2005; Mazerolle & Ransley, 2005). This definition includes any strategies or actions to promote both economic and social goals, and is not the sole purview of government. The wider definition and approach to regulation is more consistent with scholarship on governmentality, perhaps best articulated by Rose and Miller (1992) in highlighting the opposition between state and civil society and the over-valuing of a state-centric view of government, clothed as it is within neo-liberalism. Indeed, one of the regulatory scholars, Shearing, takes a strong normative position on the role the state arguing that we must move out of a “state-centred view of governance... a particularly tenacious paradigm that needs to be eclipsed” (Shearing, 2006, p. 13).

Whilst put simply as the role of civil society in regulation, the implications of this broader definition of regulation as inclusive of civil society are far-reaching. It raises questions about the role of the state, the role of industry/private sector, notions of ‘public good’, competing objectives amongst actors, and the definition and activity of ‘governance’ (for discussion of these issues, see for example Goldsmith & Eggers, 2004; Shearing, 2006).

Taking then the broader definition of regulation as ‘steering the flow of events’ regulatory theory as applied to illicit drugs explicates the state’s role in controlling illicit drugs, and the ways in which the state deploys its resources and/or mobilises external resources (through third parties and the affected communities). In addition, the role of civil society in managing illicit drug use amongst its members is emphasised, empowering citizens through a plurality of organisations, structures and systems. The focus of this paper is largely on the former—that is the ways in which the state exercises regulation of illicit drugs.

A central tenet of effective regulation is the use of multiple strategies constructed in the form of a pyramid (Ayres & Braithwaite, 1992). The pyramid represents escalating sanctions and escalating regulatory mechanisms. This notion of “responsive regulation” avoids the polarisation of regulation to be either voluntary and operate through persuasion or conversely merely through punishment regimes. The pyramid is founded on “soft before hard” and “carrots before sticks”. It escalates through:

1. voluntarism (people doing the right thing without coercion);
2. self-regulation (regulation through associations that govern the behaviour of members);
3. economic instruments (supply-side incentives and sanctions);
4. enforcement (command and control, criminal penalties).

The vertical axis to the pyramid is coerciveness and it is smallest at the top because of greater reliance on the less costly and intrusive base strategies (Braithwaite et al., 2005; Grabosky, 1997).

Two steps in this classic pyramidal notion of regulation can be readily seen in illicit drug regulation: the top and the bottom of the pyramid. Illicit drugs are regulated through a binary process: ‘voluntarism’ (base of pyramid) and ‘command and control’ (top of pyramid). For example, in prevention programs, the state relies on persuasion to encourage young people to not take drugs—the base of the regulatory pyramid. For those that do consume and trade in drugs, command and control strategies (criminal penalties) are applied.

To date, government intervention efforts of persuasion – to prevent the commencement of drug use – are weak at best (Faggiano et al., 2005) even though research continues to advance the approaches. There has been a move away from scare campaigns in schools to more sophisticated and better researched interventions in community strengthening and using knowledge of risk and

resilience factors to design targeted programs (Skager, 2007). This does not stop governments from investing in the classic persuasion technique – mass media campaigns – even though very limited evidence exists to support their effectiveness (Derzon & Lipsey, 2002; Palmgreen & Donohew, 2003).

At the other end of the spectrum, enforcement (‘command and control’ to use the regulatory language) predominates government approaches to the regulation of illicit drugs. This is typified in the international regulatory control regimes and in the various laws governing the use and sale of illicit drugs. International regulatory control of illicit drugs is conducted through three treaties (the 1961 *Single Convention on Narcotic Drugs*; the 1971 *Convention on Psychotropic Substances*; and the 1988 *Convention against the Illicit Traffic in Narcotic Drugs and Psychotropic Substances*). Criticism of both the treaties and their governing bodies (notably the International Narcotics Control Board) has been strong (Bewley-Taylor, 2003, 2005; Csete & Wolfe, 2007; Room, 1999; Small & Drucker, 2007). The sale, distribution, use and possession of illicit drugs are illegal—thus the regulation of illicit drugs is a ‘command and control’ strategy. There has been a long-running debate regarding regulatory change in the laws governing the use and sale of illicit drugs (see for example: Kleber, 1994; MacCoun & Reuter, 2001; Nadelmann, 1989; Wodak, Reinerman, & Cohen, 2002). The arguments against changing the current regulatory regime largely concern the risk of increased prevalence of use under such circumstances, such that the increased burden of disease would be significant. Proponents for a change in the regulatory framework towards legalisation generally argue that the harms caused by illicit drugs largely result from the illegal nature of the substances (black market, absence of quality control, criminal charges for users and so on). A number of regulatory models have been proposed: full legalisation, prescribed availability (such as for registered drug users), licensed availability (such as occurs with alcohol), and various versions of depenalisation or decriminalisation of drug use.

This paper does not further explore these two (top and bottom) pyramid strategies, but starts from the premise that ‘persuasion’ and ‘command and control’ strategies alone leave the regulatory approaches significantly limited. Here I explore the application of two other levels of the pyramid – self-regulation and market regulation – to illicit drugs.

### Self-regulation

Self-regulation is a relatively common regulatory practice in industry. It relies upon the capacity of the industry or individual companies to exercise sufficient control for the public good – in relation to such things as safety, environmental protection and so on – over and above profit. Self-regulation may include legislation, guidance, inspections and monitoring and sanctions for non-compliance by the industry, organisation or service being regulated. The extent of autonomy coupled with accountability and transparency has been questioned, given the inherent potential conflict of interest in self-regulation of industry, where profit-making may conflict with accountability. Indeed, of relevance to our field are the critiques of the alcohol industry’s self-regulation regarding advertising codes (Munro & de Wever, 2008; Saunders & Yap, 1991). It is interesting to consider how states could make better use of self-regulation within illicit drug policy. The inherent conflict of interest does not exist in the same form as for legal industries, given that the profits are made within the ‘black’ market. And the illegality in itself suggests that self-regulation could be a primary mechanism by the state, for example to reduce harmful drug use.

Self-regulation mechanisms can be applied to drug treatment consumers. A powerful consumer movement is regarded as vital

in securing regulation (Grabosky & Braithwaite, 1993). Active consumer participation in health care service development and provision has become an important principle of best practice around the globe. There is growing attention to drug user participation in drug treatment services (at least in Australia, see Bryant, Saxton, Madden, Bath, & Robinson, 2008a; Bryant, Saxton, Madden, Bath, & Robinson, 2008b). Whilst critically important, these types of consumer empowerment activities in association with health care services are not the primary focus of self-regulation referred to here. Self-regulation here refers to that which can occur within the drug using community itself. There is some resonance between self-regulation and the notion of ‘microgovernance’. In the context of health and security (Burris, 2006) notes “. . . the promise of microgovernance strategies that promote health and security by mobilizing local knowledge and capacity amongst poor people” (p. 196).

User groups (associations for injecting drug users) are an excellent example of state-supported self-regulation. User groups were established in Australia with the emergence of AIDS. Largely funded through AIDS prevention campaigns, the purpose of these user groups was to engage drug using peers and educate them regarding reducing the risk of contracting AIDS. Groups formed around Australia in the mid to late 1980s. Over time the role and function of these associations have moved away from AIDS prevention and is now more focussed on reducing harms, advocating for good service provision, the reduction of stigma and the rights of drug users. AIVL is the Australian peak body representing drug users. “The organisational philosophy of AIVL is user-centred and supports the right of people who use illicit drugs to self-organise and form peer-based structures and processes in order to reduce drug-related harm.” ([www.aivl.org.au](http://www.aivl.org.au), accessed 3/4/07). If considered as a self-regulation strategy then continued government support and enhanced funding for such organisations become important. At present peer user groups are often regarded as a fringe element of drug policy; however within a regulatory framework they can be seen as an important part of a pyramid of regulatory strategies, with a key role in the self-regulation layer of the pyramid. This would provide both theory and legitimacy to their role and function.

Before moving to market regulation, it should be pointed out that there are risks associated with sole reliance on self-regulation, especially for a marginalised and stigmatised group. The primary risk is that the state abdicates responsibility, resources are limited and that the systemic conditions leading to the marginalisation, such as unemployment and poverty, cannot be addressed from within the community itself alone (Burris, 2006). This speaks to the importance of multiple regulatory strategies at play simultaneously.

### Economic regulation—through the market

The value of the illicit drug market is substantial. A 2005 estimate valued the global narcotics trade at \$320 billion (US) although there is much uncertainty about the figures (Reuter & Trautmann, 2009; United Nations Office on Drugs and Crime (UNODC), 2007). Research that has described the operations of illicit drug markets, the roles of players within the markets and the structures and organisational features confirm that drug markets do not ascribe to one simple prototype and that they are active, dynamic phenomenon, constantly changing (Caulkins, Johnson, Taylor, & Taylor, 1999; Coomber, 2004; Dorn, Murji, & South, 1992; May & Hough, 2004; Natarajan & Belanger, 1998; Natarajan & Hough, 2000; Preble & Casey, 1996; South, 2004). Part of the diversity in understanding drug markets also comes from how they have been studied: different disciplinary approaches have been used to understand

drug markets including economics, criminology, ethnography and psychology (Ritter, 2006).

The question then arises—how can regulation be applied to this substantial and diverse phenomenon? The usual market-based regulatory approaches, such as taxation and charges, cannot be applied. But are there other market-based mechanisms that would reduce harmful drug use? Market forces could be fostered to encourage suppliers to change their behaviour in order to produce less harm. One example of market regulation is ‘pill-testing’: a strategy to introduce some ‘quality control’ mechanisms and alter seller behaviour as a result. With the increasing use of synthetic drugs, ecstasy in particular, the provision of pill-testing kits to consumers has been explored. Pill-testing is the intuitively appealing idea of providing feedback to users on the chemical make-up of pills, with the goal of potentially reducing the harm from adulterated pills or the harm to consumers who believe they have purchased one type of product but in fact have purchased another, more harmful product. In this paper, it is discussed as a regulatory strategy aimed at product control and increasing the consumer’s ability to choose good from bad products. It is not without controversy and concerns regarding iatrogenic effects (for example Winstock, Wolff, & Ramsey, 2001 but see also Spruit, 2001; van de Wijngaert et al., 1999). It is possible that when framed as a traditional market regulation strategy, these controversies would be less potent.

Pill-testing, assuming real-time and accurate results, has the potential to operate as an individual harm reduction strategy (see for example Camilleri & Caldicott, 2005; Kriener et al., 2001; Kriener & Schmid, 2005). Here we are interested in evidence about market impact. Since 1992, the Netherlands has had pill-testing available to drug users as part of a surveillance and harm reduction program (Spruit, 2001). The system in the Netherlands operates as a potential “warning system” leading to campaigns about particularly dangerous products. Spruit (2001) found that those products that were identified as particularly dangerous and the subject of warning campaigns were eliminated from the market. Projects in Berlin and Switzerland reported that the ingredients of tested pills corresponded more and more to the expected ones over time—suggesting that pill-testing might have the ability to change the black market in positive ways (Kriener et al., 2001). Therefore, there does appear to be some evidence of the capacity to impact on an illicit market through programs such as pill-testing.

### Non-state regulatory actors

The third type of regulatory strategy considered here is that of harnessing third parties. It is argued that “the state cannot, and should not, be the only or indeed primary regulator” (Grabosky & Braithwaite, 1993, p. 6). This position acknowledges that the state has limited resources, cannot manage everything in best way, and that non-state agents/actors/agencies can play an effective role in regulation (Grabosky, 1997). Different terms are used for this harnessing of non-state resources: co-production, multi-lateralisation, inter-agency/multi-agency partnerships, third party policing, and hybrid governance.

There is a proliferation of regulatory actors and regulatory strategies. In 1984 Grabosky and Braithwaite (1986) identified more than 96 different government regulatory agencies in one country (Australia). More broadly, regulatory actors can include international bodies, government, industry groups, professional groups, NGOs, private industry businesses and consumer groups. Regulation theory argues that good policy considers a mix of public and private regulation (Ayres & Braithwaite, 1992; Gunningham & Grabosky, 1998). Regulation through combinations of state, industry and public interest groups needs to pay attention to the ways in

which the multiple regulatory strategies may impact on each other in synergistic and non-synergistic ways (Grabosky, 1994, 1997).

In the area of security, of relevance to illicit drugs, there is now strong acknowledgement that the contemporary arrangements for security governance are pluralised (Wood & Dupont, 2006). Examples include commercial military service providers, inter-agency anti-terrorist networks, marketisation of public policing, forms of ‘gated communities’ and security in shopping malls. In their book ‘Third Party Policing’ (Mazerolle & Ransley, 2005) review research evaluating third party policing in relation to property crimes, violence, juvenile crimes and crime in public places. The range of ‘third parties’ was large including parents, schools, licensing authorities, Councils but with a preponderance towards business owners. They conclude that there is evidence for the effectiveness of third party policing as a crime control measure especially when business owners are the third party involved.

Harnessing non-state regulatory actors in the arena of illicit drugs has been an area of study within regulation. For example, in a review of amphetamine type stimulants, regulation scholars identified a raft of hybrid regulatory opportunities that law enforcement agencies could harness in improving the control of amphetamine type stimulants (Cherney, O’Reilly, & Grabosky, 2006a; Cherney, O’Reilly, & Grabosky, 2006b). These opportunities largely concern police working with the pharmaceutical industry, chemical manufacturers and retail pharmacies to prevent both direct supply leakages and diversion of precursor chemicals used in the manufacture of amphetamine type stimulants. Effectively, the business owners in question become engaged with police in controlling supply. Best practice principles were distilled from case studies (Cherney, O’Reilly, & Grabosky, 2005).

Another body of research on regulating illicit drug use through hybrid governance using non-state resources examines the potential role that property owners can play in reducing drug use and related harm. Noting the lack of high quality research evidence, Mazerolle and Ransley (2005) review 21 studies examining third party policing in relation to illicit drug problems. Place management strategies through enforcement of housing, building and fire codes demonstrate reductions in police intervention, arrests and drug dealing (Mazerolle & Ransley, 2005). Indeed, Mazerolle, Soole, and Rombouts (2006) and Mazerolle, Soole, and Rombouts (2007) found that third party policing demonstrated greater research evidence than other policing strategies such as interdiction and reactive policing. “Our results suggest that the key to successful drug law enforcement lies in the capacity of the police to forge productive partnerships with third parties rather than simply increasing police presence or intervention (e.g., arrests) at drug hotspots” (Mazerolle et al., 2006, p. 409).

The underlying assumption to engaging non-state actors in the regulation of illicit drugs is that illicit drugs are a whole of society problem, not one that is left to states to manage/resolve. “. . .the capacity of government to achieve desirable social goals, . . . is not without limits” (Grabosky, 1994). The same can be said of drugs—it is not just a state responsibility but a whole of community concern. In this sense the illicit drugs field should be able to mobilise many third parties highly effectively. Engaging non-state actors legitimises this as part of a new regulatory framework, thereby allowing meta-regulation of the non-state actors. This may be particularly important for illicit drugs because they carry high emotional valence and some effective strategies can be counter-intuitive. For example non-state actors may deem that the provision of injecting equipment increases injecting behaviour and insist through their role as non-state regulators, that a needle syringe program be closed. The research evidence, however, strongly indicates that this is not the case. Regulation of non-state actors is required. Workplace drug testing, a controversial intervention, is a good example of the need for some type of meta-regulation by the state.

## Discussion and conclusions

Instead of illicit drug regulation being focussed in a binary way on voluntary persuasion (prevention) and ‘command and control’ (law enforcement), regulatory theory provides other types of approaches. Three other aspects of regulatory theory are explored: self-regulation, market regulation and mobilisation of non-state actors. Examples of each: funded consumer groups; pill-testing; and precursor regulation respectively are discussed.

Regulatory theory can provide a coherent framework and rationale for certain government actions, such as self-regulation or market regulation, that currently occur on an ad hoc basis which leaves them vulnerable to political whim. If framed within regulatory theory and language there may be greater purchase for such strategies.

Regulatory theory not only situates current drug policy responses, but also enables innovative thinking about possible new responses within the theoretical framework. I briefly explore some new possibilities here. Self-regulation has not received much serious consideration as an option for illicit drug policy. Peer user groups are not necessarily regarded as agents of regulation. This is understandable in the context of an illegal behaviour where illicit drug users are frequently marginalised and stigmatised. However, a strong consumer movement as a regulatory strategy holds the potential to significantly reduce the harms from illicit drug use. Responsive regulation, built on a pyramid of regulatory actions, suggests that self-regulation may be a potent regulatory strategy, and of lower cost to government than those regulatory strategies at the top of the pyramid, such as law enforcement. For example, changing consumer behaviour and preferences in relation to routes of drug administration has rarely been considered by states as a self-regulatory mechanism to reduce harmful illicit drug use. Work in the area of encouraging alternate routes of drug administration other than injecting has been aimed at both promoting transition away from injecting for those already injecting and actively discouraging the commencement of injecting in newer drug users. Research has demonstrated the viability of shifting people away from injecting routes of administration, but this type of intervention has yet to be widely adopted (Casriel et al., 1990; Des Jarlais, Casriel, Friedman, & Rosenblum, 1992; Dolan et al., 2004; Hunt, Derricott, Preston, & Stillwell, 2001; Hunt, Stillwell, Taylor, & Griffiths, 1998). Another self-regulatory strategy receiving more recent attention is making naloxone (a short-acting opioid antagonist that reverses the effects of opioids) widely available amongst the drug using community (Green, Heimer, & Grau, 2008; Kim, Irwin, & Khoshnood, 2009; Lenton & Hargreaves, 2000; Strang et al., 2008; Tobin, Sherman, Beilenson, Welsh, & Latkin, 2009). The suggestion here is that when framed within a regulatory approach and when viewed as a self-regulatory practice endorsed by governments as one level to their pyramid of regulatory strategies, these interventions are likely to be seen as more palatable. Implementation of these ideas would require government support for the notion that drug users can be agents of regulation.

Regulation through the operation of a market is a standard regulatory activity—however one which has not necessarily been considered in relation to an illegal or ‘black’ market. This is despite the fact that the illicit drug market is highly profitable, and likely operates according to most market principles. A possibility that is consistent with market regulation is ensuring that those who sell injectable drugs do so in association with providing clean injecting equipment at point of sale. Whilst the state could not legislate this market mechanism it could build informal incentives that encourage such behaviour on behalf of dealers—for example not prosecuting dealers for selling drugs when they are in possession of injecting equipment. It would be hoped that consumers shift their preferences towards those sellers who provide clean inject-



ing equipment (representing incentives to the sellers as well as harm reduction). Research has demonstrated that the availability of injecting equipment does not result in new or greater injecting behaviour (Fisher, Fenaughty, Cagle, & Wells, 2003; Friedman et al., 1999). Another market intervention that may change sellers behaviour was suggested by Hunt, Griffiths, Southwell, Stillwell, and Strang (1999). Law enforcement officers could proactively manipulate the drug market through confiscation and seizure of those forms of heroin that are injectable (white, hydrochloride forms) and at the same time pay less attention to smoke-able forms of heroin (brown base). These two suggestions, plus the example of pill-testing given earlier, represent solid market strategies. Governments can support and advocate for these strategies based on regulatory theory.

The role of non-state actors has been a prominent regulatory approach (Mazerolle & Ransley, 2005). Whilst the role of the state is undeniable—for example in the provision of policing and drug treatment services, powerful non-state actors include individuals (families and friends), non-government organisations, business, and local communities. Indeed it is plausible that illicit drugs regulation may by necessity need these mechanisms and mobilised resources precisely because the illegality of the behaviour placing the state in a position where it may not be able to operate other than through ‘command and control’. Many of these non-state actors are already mobilised in a number of ways—for example mutual aid support groups for families and friends (Baldacchino & Hussein Rassool, 2006); police work in partnership with chemists to achieve reduced harms (<http://www.projectstop.com.au/media/ProjectStopAward230607.pdf>); the role that businesses are now playing in monitoring and supporting employees and so on. However the regulatory approach provides a framework and theory to consider the regulation of illicit drugs by non-state actors.

One significant advantage of regulatory theory is that it enables the opportunity to explore unchartered regulatory areas. The second advantage is that regulatory theory can provide a comprehensive analysis of all the regulatory strategies, across multiple actors and systems. As noted in relation to the regulation of occupational health and safety there is a “web of often horizontally linked actors across a range of private and public organisations” (Braithwaite et al., 2005, p. 58). It is vital to be able to keep all the regulatory strategies in mind simultaneously, partly because the combinations and permutations of different regulatory strategies may impact on each other in both synergistic and non-synergistic ways, potentially enhancing or lessening each other (Grabosky, 1994, 1997).

Indeed, nodes, networks and webs of influence are popular ideas within current regulatory theory (for example Braithwaite et al., 2005; Burris, 2004; Wood & Shearing, 2007) precisely because of the diversity and dispersal of actors and agents of change. Governance is now more accurately theorised and described as networks rather than simple hierarchies (Braithwaite et al., 2005). As Burris (2004) notes, an emerging theory of “nodal governance” is “. . . offered to describe the management of events in social systems” (Burris, 2004, p. 337). Nodal governance enables examination of how regulatory strategies play out and how the whole network of regulatory actions and multiple actors operate in synergistic and non-synergistic ways.

Space does not permit consideration of other aspects of regulatory theory and practice as it applies to illicit drugs. However, it should be noted that there is much more that regulatory theory and practice can offer illicit drugs. This paper has focused on three: self-regulation, market regulation and harnessing non-state actors. But further work could examine such things as regulatory failure, for example tobacco growers and regulation; the strengths-based pyramid notion—where the regulatory strategies are based on rewarding behaviour and escalate through informal praise to

prizes and economic rewards (as compared to escalation through voluntarism, self-regulation, command and control). Globalisation is another area of regulatory theory of relevance to illicit drugs (Braithwaite & Drahos, 2000). Regulatory scholars also have studied ‘weak and failing states’ (DuPont, Grabosky, & Shearing, 2003; Wood & Dupont, 2006) of relevance to illicit drugs because countries where heroin and cocaine are produced can be described as such. In addition, examination of the new security–development interface in the regulatory context (see Duffield, 2001) has implications for countries where both development and security are major issues, such as Afghanistan, where the destruction of opium crops is fundamentally linked to development (“UNGASS Action Plan on International Cooperation on the Eradication of Illicit Drug Crops on the Alternative Development”. See also Navarrete-Frias and Thoumi (2005) for analysis of Colombia and cocaine).

A feature of illicit drug policy scholarship is the frequent absence of a theoretical framework. Regulatory theory and practice is a rich and well-developed field in the social sciences. Illicit drug policy scholars could learn much from regulatory theory, in the hope that we can develop more effective and compassionate responses to illicit drug use and the associated harms.

### Acknowledgements

This work was undertaken whilst the author was a Visiting Fellow at the Regulatory Institutions Network, the Australian National University. The RegNet scholars welcomed me, provided both practical and intellectual support, and gave generously of their time in talking with me about regulation. The following regulatory scholars were invaluable resources in shaping the work in this paper: Peter Grabosky, John Braithwaite, Valerie Braithwaite, Clifford Shearing and Jennifer Wood. This work forms part of the Drug Policy Modelling Program, funded by Colonial Foundation Trust. The author is a recipient of an NHMRC Career Development Award.

### Conflict of interest

There are no competing interests.

### References

- Ayres, I., & Braithwaite, J. (1992). *Responsive regulation: Transcending the deregulation debate*. New York: Oxford University Press.
- Baldacchino, A., & Hussein Rassool, G. (2006). The self-help movement in the addiction field-revisited. *Journal of Addictions Nursing*, 17, 47–52.
- Bewley-Taylor, D. (2003). Challenging the UN drug control conventions: Problems and possibilities. *International Journal of Drug Policy*, 14, 171–179.
- Bewley-Taylor, D. (2005). Emerging policy contradictions between the United Nations drug control system, and the core values of the United Nations. *International Journal of Drug Policy*, 16, 423–431.
- Braithwaite, J., & Drahos, P. (2000). *Global business regulation*. Cambridge: Cambridge University Press.
- Braithwaite, J., Healy, J., & Dwan, K. (2005). *The governance of health, safety and quality: A discussion paper*. Canberra: Australian Council for Safety and Quality in Health Care, Commonwealth of Australia.
- Bryant, J., Saxton, M., Madden, A., Bath, N., & Robinson, S. (2008a). Consumer participation in the planning and delivery of drug treatment services: The current arrangements. *Drug and Alcohol Review*, 27(2), 130–137.
- Bryant, J., Saxton, M., Madden, A., Bath, N., & Robinson, S. (2008b). Consumers' and providers' perspectives about consumer participation in drug treatment services: Is there support to do more? What are the obstacles? *Drug and Alcohol Review*, 27(2), 138–144.
- Burris, S. (2004). Governance, microgovernance and health. *Temple Law Review*, 77, 335–362.
- Burris, S. (2006). From security to health. In J. Wood, & B. DuPont (Eds.), *Democracy, society and the governance of security*. Cambridge: Cambridge University Press.
- Camilleri, A. M., & Caldicott, D. (2005). Underground pill testing, down under. *Forensic Science International*, 151, 53–58.
- Casriel, C., Des Jarlais, D. C., Rodriguez, R., Friedman, S. R., Stepherson, B., & Khuri, E. (1990). Working with heroin sniffers: Clinical issues in preventing drug injection. *Journal of Substance Abuse Treatment*, 7(1), 1–10.
- Caulkins, J., Johnson, B., Taylor, A., & Taylor, L. (1999). What drug dealers tell us about their costs of doing business. *Journal of Drug Issues*, 29, 323–340.

- Cherney, A., O'Reilly, J., & Grabosky, P. (2005). *The governance of illicit synthetic drugs: National drug law enforcement research fund*. Commonwealth of Australia.
- Cherney, A., O'Reilly, J., & Grabosky, P. (2006a). The multilateralization of policing: The case of synthetic drug control. *Police Practice and Research*, 7(3), 177–194.
- Cherney, A., O'Reilly, J., & Grabosky, P. (2006b). Networks and meta-regulation: Strategies aimed at governing illicit synthetic drugs. *Policing and Society*, 16(4), 370–385.
- Coomber, R. (2004). Editorial: Drug use and drug market intersections. *Addiction Research & Theory*, 12(6), 501–505.
- Csete, J., & Wolfe, D. (2007). Dangerously out of step: The International Narcotics Control Board and HIV/AIDS. *Global AIDSLink*, 105, 15–18.
- Denhardt, R. B., & Denhardt, J. V. (2000). The new public service: Serving rather than steering. *Public Administration Review*, 60(6), 549–559.
- Derzon, J. H., & Lipsey, M. W. (2002). A meta-analysis of the effectiveness of mass-communication for changing substance-use knowledge, attitudes, and behavior. In W. D. Crano, & M. Burgoon (Eds.), *Mass media and drug prevention: Classic and contemporary theories and research*. London: Lawrence Erlbaum Associates.
- Des Jarlais, D. C., Casriel, C., Friedman, S. R., & Rosenblum, A. (1992). AIDS and the transition to illicit drug injection—results of a randomized trial prevention program. *British Journal of Addiction*, 87(3), 493–498.
- Dolan, K., Clement, N., Rouen, D., Rees, V., Shearer, J., & Wodak, A. (2004). Can drug injectors be encouraged to adopt non-injecting routes of administration (NIROA) for drugs? *Drug and Alcohol Review*, 23(3), 281–286.
- Dorn, N., Murji, K., & South, N. (1992). *Traffickers: Drug markets and law enforcement*. London: Routledge.
- Duffield, M. (2001). *Global governance and the new wars*. London: Zed Books Ltd.
- DuPont, B., Grabosky, P., & Shearing, C. (2003). The governance of security in weak and failing states. *Criminal Justice*, 3(4), 331–349.
- Faggiano, F., Vigna-Taglianti, F., Versino, E., Zambon, A., Borraccino, A., & Lemma, P. (2005). *Cochrane Database of Systematic Reviews*.
- Fisher, D. G., Fenaughty, A. M., Cagle, H. H., & Wells, R. S. (2003). Needle exchange and injection drug use frequency: A randomized clinical trial. *Journal of Acquired Immune Deficiency Syndromes*, 33(2), 199–205.
- Friedman, S. R., Curtis, R., Jose, B., Flom, P. L., Neaigus, A., & Des Jarlais, D. C. (1999). The message not heard: Myth and reality in discussions about syringe exchange. *AIDS*, 13(6), 738–739.
- Goldsmith, S., & Eggers, W. D. (2004). *Governing by network: The new shape of the public sector*. Washington, DC: The Brookings Institution.
- Grabosky, P. (1994). Green markets: Environmental regulation by the private sector. *Law & Policy*, 16(4), 419–448.
- Grabosky, P. (1997). Discussion paper: Inside the pyramid.
- Grabosky, P., & Braithwaite, J. (1986). *Of manners gentle: Enforcement strategies of Australian business regulatory agencies*. Melbourne: Oxford University Press.
- Grabosky, P., & Braithwaite, J. (Eds.). (1993). *Business regulation and Australia's future*.
- Green, T., Heimer, R., & Grau, L. (2008). Distinguishing signs of opioid overdose and indication for naloxone: An evaluation of six overdose training and naloxone distribution programs in the United States. *Addiction*, 103, 979–989.
- Gunningham, N., & Grabosky, P. (1998). *Smart regulation*. Oxford: Oxford University Press.
- Hunt, N., Derricott, J., Preston, A., & Stillwell, G. (2001). Preventing initiation into injecting. [www.exchangesupplies.org/campaignmaterials](http://www.exchangesupplies.org/campaignmaterials) Accessed 22.09.05.
- Hunt, N., Griffiths, P., Southwell, R., Stillwell, G., & Strang, J. (1999). Preventing and curtailing injecting drug use: A review of opportunities for developing and delivering 'route transition interventions'. *Drug and Alcohol Review*, 18(4), 441–451.
- Hunt, N., Stillwell, G., Taylor, C., & Griffiths, P. (1998). Evaluation of a brief intervention to prevent initiation into injecting. *Drugs: Education, Prevention and Policy*, 5(2), 185–194.
- Kim, D., Irwin, K., & Khoshnood, K. (2009). Expanded access to naloxone: Options for critical response to the epidemic of opioid overdose mortality. *American Journal of Public Health*, 99, 402–407.
- Kleber, H. (1994). Our current approach to drug abuse—Progress, problems, proposals. *The New England Journal of Medicine*, 330, 361–365.
- Kriener, H., Billeth, R., Gollner, C., Lachout, S., Neubauer, P., & Schmid, R. (2001). *An inventory of on-site pill-testing interventions in the EU*. Vienna, Austria: European Monitoring Centre for Drugs and Drug Addiction.
- Kriener, H., & Schmid, R. (2005). Check your pills. Check your life. ChEck iT! High quality on-site testing of illicit substances. Information, counselling and safer use measures at raves in Austria. <http://www.drugtext.org/library/articles/kriener.htm> Accessed 14.09.05.
- Lenton, S., & Hargreaves, K. (2000). Should we trial the provision of naloxone to heroin users for peer administration to prevent fatal overdose? *Medical Journal Australia*, 173, 260–263.
- MacCoun, R. J., & Reuter, P. (2001). *Drug war heresies: Learning from other vices, times and places*. New York: Cambridge University Press.
- May, T., & Hough, M. (2004). Drug markets and distribution systems. *Addiction Research & Theory*, 12(6), 549–563.
- Mazerolle, L., & Ransley, J. (2005). *Third party policing*. Cambridge: Cambridge University Press.
- Mazerolle, L., Soole, D., & Rombouts, S. (2006). Street-level drug law enforcement: A meta-analytic review. *Journal of Experimental Criminology*, 2(4), 409–435.
- Mazerolle, L., Soole, D., & Rombouts, S. (2007). Drug law enforcement: A review of the evaluation literature. *Police Quarterly*, 10(2), 115–153.
- Munro, J., & de Wever, J. (2008). Culture clash: Alcohol marketing and public health aspirations. *Drug and Alcohol Review*, 27, 204–211.
- Nadelmann, E. (1989). Drug prohibition in the United States: Costs, consequences, and alternatives. *Science*, 245(4921), 939–947.
- Natarajan, M., & Belanger, M. (1998). Varieties of drug trafficking organisations: A typology of cases prosecuted in New York City. *Journal of Drug Issues*, 28(4), 1005–1026.
- Natarajan, M., & Hough, M. (2000). *Illegal drug markets: From research to prevention policy*. New York: Criminal Justice Press.
- Navarrete-Frias, C., & Thoumi, F. E. (2005). *Illegal drugs, human rights of peasants and indigenous communities: The case of Colombia*. United Nations Educational, Scientific and Cultural Organization.
- Osborne, D., & Gaebler, T. (1992). *Reinventing government: How the entrepreneurial spirit is transforming the public sector*. Reading, MA: Addison-Wesley.
- Palmgreen, P., & Donohew, L. (2003). Effective mass media strategies of drug abuse prevention campaigns. In Z. Sloboda, & W. J. Bukoski (Eds.), *Handbook of drug abuse prevention: Theory, science and practice*. New York: Kluwer Academic/Plenum Publishers.
- Preble, E., & Casey, J. (1996). Taking care of business. *International Journal of Addictions*, 4, 1–24.
- Reuter, P., & Trautmann, F. (Eds.). (2009). *A Report on Global Illicit Drugs Markets 1998–2007*. European Commission.
- Ritter, A. (2006). Studying drug markets: Disciplinary contributions. *International Journal of Drug Policy*, 17, 453–463.
- Room, R. (1999). The rhetoric of international drug control. *Substance Use and Misuse*, 34(12), 1687–1707.
- Rose, N., & Miller, P. (1992). Political power beyond the State: Problematics of government. *British Journal of Sociology*, 43(2), 173–205.
- Saunders, B., & Yap, E. (1991). Do our guardians need guarding? An examination of the Australian system of self-regulation of alcohol advertising? *Drug and Alcohol Review*, 10, 15–27.
- Shearing, C. (2006). Reflections on the refusal to acknowledge private governments. In J. Wood, & B. DuPont (Eds.), *Democracy, society and the governance of security* (pp. 11–32). Cambridge: Cambridge University Press.
- Skager, R. (2007). Replacing ineffective early alcohol/drug education in the United States with age-appropriate adolescent programmes and assistance to problematic users. *Drug and Alcohol Review*, 26(6), 577–584.
- Small, D., & Drucker, E. (2007). Closed to reason: Time for accountability for the International Narcotic Control Board. *Harm Reduction Journal*, 4, 13.
- South, N. (2004). Managing work, hedonism and the borderline between the legal and illegal markets: Two case studies of recreational drug users. *Addiction Research & Theory*, 12(6), 525–538.
- Spruit, I. P. (2001). Monitoring synthetic drug markets, trends, and public health. *Substance Use and Misuse*, 36(1&2), 23–47.
- Strang, J., Manning, V., Mayet, S., Best, D., Titherington, E., Santana, L., et al. (2008). Overdose training and provision of take-home naloxone to opiate users: Prospective cohort study of immediate and lasting impact on knowledge and attitudes and subsequent management of overdoses. *Addiction*, 103, 1648–1657.
- Tobin, K., Sherman, S., Beilenson, P., Welsh, C., & Latkin, C. (2009). Evaluation of the Staying Alive programme: Training injection drug users to properly administer naloxone and save lives. *International Journal of Drug Policy*, 20
- UNGASS Action Plan on International Cooperation on the Eradication of Illicit Drug Crops on the Alternative Development. <http://www.unodc.org/unodc/en/alternative-development/ungass-action-plan-on-eradication-and-alternative-development.html> Accessed 08.01.09.
- United Nations Office on Drugs and Crime (UNODC). (2007). *World Drug Report 2007*. Vienna.
- van de Wijngaert, G. F., Braam, R. V., de Bruin, D. E., Fris, M., Maalste, N. J. M., & Verbraeck, H. T. (1999). Ecstasy use at large-scale dance events in the Netherlands. *Journal of Drug Issues*, 29(3), 679–702.
- Winstock, A. R., Wolff, K., & Ramsey, J. (2001). Ecstasy pill testing: Harm minimization gone too far? *Addiction*, 96, 1139–1148.
- Wodak, A., Reinerman, C., & Cohen, P. (2002). Cannabis control: Costs outweigh the benefits. *British Medical Journal*, 324, 105–106.
- Wood, J., & Dupont, B. (Eds.). (2006). *Democracy, society and the governance of security*. Cambridge: Cambridge University Press.
- Wood, J., & Shearing, C. (2007). *Imagining security*. Devon: Willan Publishing.