

Volume Two: Theoretical Perspectives

Introduction

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Theories are important because they allow us to organise knowledge, to examine relationships between variables and suggest explanations for phenomena, for behaviour and for events, and to test explanations and challenge current wisdom.

Theories can never be accepted as ultimate truths and one of the goals of science is ongoing testing, falsification or elaboration of existing theories. The differences in perceptions and responses to drug and alcohol use which were discussed in volume one have generated a wide array of theories drawn from many disciplines. Some are ‘grand’ theories – attempting to provide explanations which are comprehensive and on a macro scale – others aim to provide useful frameworks for thinking about concepts or behaviours. Often the term ‘theory’ is used broadly to include approaches or models for designing research studies, understanding or collecting new data. This volume includes papers which illustrate all these facets of theory building. In the drug and alcohol field, much of the research and theory development is directed towards explaining why people use drugs in the first place (especially drugs which are regarded by their cultures as harmful), why some people continue (while others stop), why some individuals use in a harmful manner or experience harms from drug use, and why some people become addicted. The papers in this volume broadly follow this *fil rouge* from no use, to use, to problem use, to addiction; they provide examples of theories drawn from different disciplines – anthropology, sociology, criminology, economics and medicine - and they illustrate different levels of explanation – from the macro to the micro level. Finally, they invite reflection on how we gain the knowledge and data needed to build or challenge theory.

So, why do people use legal and illegal drugs? The answer depends on what theory one chooses to focus on. A biologist may say that drug use is related to neurochemical mechanisms underlying vulnerability for substance use and misuse. A psychologist may say that drug use is related to psychological characteristics and personality traits

and to an individual's unique history of experiences across the life span. Sociological explanations of illegal drug use and alcohol misuse may draw on the interpretative categories of sociological theories that were developed to explain deviant behaviour or on positivist survey and epidemiological approaches to build models of the factors which influence progression from substance use to dependency. Economic theorists are likely to use theories of supply and demand, looking at the availability and price of different substances, or conduct cost benefit analyses. As we saw in volume one, historians are likely to point to ways in which explanations and theories are products of their time and likely to change with the development of knowledge or with a shift in perceptions of the issues. However, one thing which is abundantly clear and demonstrated in this volume, is that no single theoretical perspective is adequate to explain the complex phenomenon of drug and alcohol use.

Why use drugs? Theories explaining drug and alcohol use

The classic paper by *Zinberg 1984* introduces us to the complexity of explaining substance use through an examination of the relationship between the drug itself (*drug*), the personality and attitudes of the user (*set*), and the context within which the drug is used (*setting*) – thereby also introducing the mix of biological, psychological and sociological perspectives on use. The importance of *set* and *setting* in framing how drug use is experienced is illustrated in his study of controlled heroin use in New York. Although Zinberg studied illicit drugs, his work is relevant to understanding licit substances. As discussed in volume one, the strength of an alcoholic beverage, the personality, experience and personal circumstances of the drinker, and the context in which alcohol is consumed (where, when, with whom) influence the physiological and social effects of the drug. *Becker's* earlier *1953* study had already demonstrated the importance of *setting*. From his research on learning about marijuana use, Becker argues that behaviour is the result of social experiences during which the individual learns about a particular behaviour and about what makes it pleasurable, acceptable, worthwhile – or not. In his view, pre-dispositional theories (based on personality 'traits' or vulnerabilities which 'cause' drug use)– are unable to account for users who do not display the expected traits and are unable to explain changes in use of the drug

over time. Becker is concerned with using drugs for pleasure and with the process of learning to perceive (in this case marijuana use) as pleasurable. His research provides an explanation for progression from non-use to use. In similar vein, *Young 1971* elaborates on the theoretical frameworks developed through Zinberg and Becker's work by suggesting that there is a two way process in drug taking: a dynamic is created whereby drug use affects the user's metabolism: changes in the metabolism are interpreted by the user according to context, environment and experiences and this affects, and again alters, the user's metabolism. Young cites studies which indicate the relevance of these theories to alcohol, opiates and other drugs. He goes on to consider drug use as part of *sub culture*, countering arguments which suggest that sub-cultures automatically transmit drug use (an idea based on analogies with the germ theory of disease). Instead, Young proposes that people accept socialisation into drug use because they find the culture attractive and that cultures contain and regulate drug use within the group's normative boundaries. Thus, Young argues, a drug's effects cannot be understood without also taking account of the social context of use. Young's conclusion that a *socio-pharmacological approach* is best suited to explaining dependency brings the three elements of *drug, set* and *setting* together.

Later work by social scientists has both critiqued and built on these earlier studies. For instance, it has been argued that a focus on *risk* and the *risk society* (Beck 1992) has come to dominate the examination of drug use and hence theoretical development and policy understanding. Duff (2008), for one, notes how rarely the pleasures associated with drug use are the subject matter for research and theory. He suggests the importance of acknowledging contextual pleasure as well as physiological pleasure, by which he means the pleasure derived from experiencing the space in which use takes place, the environment and ambience, the occasion of the drug use (i.e. *setting*). Interviews with young people in Australia, were the basis for arguing, that:

‘a more holistic understanding of the experience of drug related pleasures has the potential to further contextualize existing accounts of illicit drug use whilst also serving as a timely corrective to more “rationalist” accounts of young people’s drug use behaviours...(which privilege). ‘cost-benefit’ decision-

making and cognitive reflection, over and above the corporeal, situated experience of the body and its pleasures...’ (Duff 2008: 385)

It is suggested that such an approach would facilitate the emergence of new, context specific, drug initiatives which could counter the problem of contemporary drug policies remaining ‘trapped in a logic of risk and risk avoidance’ (p391). (cf Hunt, 2008, for a similar study of ecstasy use and pleasure in a sample of young people in San Francisco: this study also emphasises the role of pleasure and the importance of context).

In re-visiting the *normalisation* debate – which posited that, for many young people, using drugs had become an accepted part of everyday life - *Measham and Shiner 2009* point to links with the new criminology which emerged in the 1960s, noting, in particular work by Becker (1963) and Young (1971). Becker’s work, they suggest, was important in highlighting the rejection of theories which explained drug use as due to individual pathology and social dysfunction and drew attention to explanations offered by ‘new’ deviancy theories which emphasised the growth of consumption and leisure. Young, too, rejected the notion of drug use as a *disease* and drew attention to the links between lifestyle choices, including drug use, and social structures. Measham and Shiner build on earlier work to argue that drug use is the result of a complex and fluid interplay between structure and agency which goes beyond explanations based on rational action models or individualised notions of risk management. Drug use, they contend, needs to be understood in terms of *situated choice or structured action*.

Measham and Shiner’s paper indicates the importance of considering the growth of consumption and leisure and the relationship between productivity and consumption in seeking to explain youthful drug use. The paper by *Pennay 2012* provides an example of (and a challenge to) the body of literature which has emerged around the topic of the *night time economy*. Pennay uses insights from theories on consumerism, risk and risk management to examine how *mainstream* party drug users manage to balance drug use in a ‘controlled loss of control’ manner. The research illustrates the importance of space or context which in part determines which drugs are used and how they are used; it demonstrates how, for some young people, drug use is regulated

and adapted to allow for the maintenance of their position as *mainstreamers* and, at the same time, maximising pleasure and reducing risk.

Becker's research alerts the reader to yet another facet of drug use which has informed theory; that is, perceptions of a drug, and of drug use and behaviour, can change over the course of time as context or personal circumstances or attitudes change. There are people who use legal or illegal psychoactive substances once in their life, others are sporadic users and use drugs only during weekends, some become addicted or are involved in poly-drug use and some may experience harms at different points in their *drug use careers*. This observation has generated research which adopts a *life course* perspective aiming to examine *drug use trajectories* and identify the factors which are associated with pathways into and out of drug use over the course of a lifetime. In this volume, the paper by *Hser et al. 2007* draws on theories from health and social science disciplines to critique and expand notions of *drug use career* and to argue that a *life course* approach is better suited to examining the heterogeneous and often long term patterns of drug use. A *life course* approach, the authors maintain, explicitly recognizes the importance of time, timing, and temporal processes. It focuses on the patterns or trajectories across individuals' lives and the ways in which those patterns are shaped by the broader historical context: and it offers an alternative to more historically neutral and static conceptualizations that have dominated many domains of psychosocial research. The authors draw out the relevance of this approach to understanding addiction and the interaction of users with helping services.

While some theorists have concentrated on individual level explanations for use and problem use of substances, others have emphasised social structural influences. Feminist theorists, for example consider structural factors such as how society defines and constrains women's roles, social expectations and attitudes towards women's behaviour, and the sanctions and responses imposed on women (often compared to men) when they transgress the behavioural norms. Ettorre (2004), for instance, brings a feminist perspective to bear in examining women's alcohol and drug use and argues that a post modern approach can help to illuminate persistent systems of social inequalities, such as gender, and can combat the theoretical neglect which has resulted from the focus on male drug use. Ettorre recognises that gender differences intersect with other forms of inequalities such as race, ethnicity and class.

Living in a ‘disadvantaged’ community is another structural factor which has attracted attention and generated theory. Research has indicated that people in disadvantaged (or marginalised) communities have increased risk of illicit drugs being available and offered (Storr *et al.* 2004). The chances of suffering harm from drug use are also greater in disadvantaged communities. In the UK, ecological analyses, based on data at area or regional level, show that living in a geographical area categorised as ‘deprived’ is associated with alcohol-related harm, although reasons for the relationship are unclear and different theories are still being tested (Erskine *et al.* 2010).

For a more in depth discussion of the use of social theory in understanding drug use see Highgate P. (2008) who discusses a range of concepts that have become influential on theorizing in the drugs field: these include the concepts of *post-modernity*, of *risk society*, of *embodiment* and of *space and place* (all important for theories which underpin papers in this volume).

The papers discussed so far have introduced a wide range of theories and explanations for why people use drugs and already provide an overview of some of the individual level and social structural level factors which may increase the probability of problem substance use. The studies reported in these papers are mostly informed by social science theories. Research studies which draw on economic concepts have also generated theory at micro and macro levels. The next four papers look at the economics of drug use behaviour at individual and national levels, demonstrating the links between micro and macro theories.

We start with the micro level – the individual as an economic actor. *Preble and Casey’s 1969* classic paper challenged the clinical stereotype of heroin users as passive, dependent, socially inadequate and withdrawn from life. They describe the activities of lower class heroin users in New York, showing how they adapt to the

social and economic institutions and practices in their environment, and how they are actively engaged in meaningful economic activity – ‘taking care of business’. (cf comments and other references in Hunt *et al.*, 2001). Similarly, an ethnographic study by Dunlap (1995) provides an account of alternative market economies and the importance of economic activity based on drug dealing in a poor community in New York. Both of these studies illustrate how behaviour at individual level is linked with the wider social structure and culture. That these communities are frequently populated by ethnic minority groups, is also an important consideration. As Murji (2007: 782) has noted,

‘A consistent feature of drug distribution systems in industrialized countries has been the involvement of ethnic minority groups in some stages of the process. In part this can be seen as a consequence of the international nature of much drug trafficking ... The extent to which ethnic minority involvement is a reflection of social exclusion, and the extent to which it is a function of access and opportunity are clearly questions in need of further research. The likelihood is that those involved in street-level retail markets are drawn into the process mainly because of their disadvantaged social and economic status. By contrast those at higher levels of the distribution system are more likely to have links with the source country.’

However, Murji is critical of analyses which assume that it is ethnic attributes which are linked to aspects of illegal behaviour rather than class, gender or cultural characteristics. He concludes (p799) that:

‘...the appearance of ethnic differentiation in drug distribution is not the same thing as arguing that ethnicity *per se* is key to the operation of that business, whether at retail, middle or upper levels of the market. Whether it is the combined effect of class and geography in ghettos, or criminal milieu, ethnicity/race certainly do not operate in isolation.’

An example of middle level drug dealing (drug distribution and markets) is provided in the paper by *Reuter and Caulkins 2004*. They use economic theories of general consumer and trader behaviours to look at price dispersion and quality dispersion (of

goods) in illicit cocaine and heroin markets. Comparing licit and illicit markets, they pose the question, 'How do heroin and cocaine markets survive in the face of great uncertainty about product quality and price?' In suggesting possible explanations to the question, they draw out the implications of their findings for both economic theory and for drug control policy. *Ruggiero 1995* also discusses drug related activities as an 'occupation'. Within this frame of understanding, he compares two models to explain changes in the structures and systems of drug production and distribution. In the old model, based on the structure of criminal business, skills are learned through apprenticeship and transmitted through the family and social group; in this model, knowledge of the business remains with those who are involved in the activity. In the newer 'Fordist' model there is segmentation of tasks – which become repetitive and alienating - and displacement of knowledge from labour to management. Skills become concentrated at management level and in the organisation of labour, which is independent of those who work in the enterprise. Comparing organised crime and drug activities in Italy and London, Ruggiero concludes that patterns of illegal activity are becoming increasingly uniform: moreover, traits which are associated with official economic activity are reproduced in the non-official economies where, as in licit industries, the division of roles and tasks is often based on gender and race.

Turning to the macro level, the contribution of alcohol to the national income is well understood and has been the subject of considerable discussion, especially as regards the balance between contribution to revenue, jobs and the economy as against the social and economic costs of alcohol related harm. (cf Casswell and Thamarangsi, 2009, and Rehm *et al.* 2009 for examples of the debate on this topic and calculation of alcohol-related harm). The relationship between alcohol consumption and harm rests partially on theories which propose that the total per capita consumption of alcohol in a country is related to the level of harm experienced - in terms of mortality, morbidity, crime and a range of social and economic harms (Ledermann 1956). Consumption-harm theories have been both challenged and elaborated (e.g. Duffy 1986; Kehoe *et al.* 2012; cf Stockwell *et al* 1996 in volume three) and have been extremely influential in generating a considerable body of work, much of it based on epidemiological approaches, which provides a good picture of the harms associated with alcohol use at

international, national and more local levels. Development of methods and models of calculating the costs of harm have been a key element of research in this domain.

As Kazemier *et al.* 2013 note, revenue from illegal activities (the non-observed or *shadow economy*) is difficult to include in official statistics because of the problems of arriving at reliable estimates. In their paper, the authors attempt to estimate the size of the illegal economy (including the drugs economy) in the Netherlands in line with the definitions in the European System of National Accounts, which ‘makes it possible to describe the total economy of a region, country or group of countries, its components and its relations with other total economies’¹ They compute the consumption of illicit drugs as the product of the number of drug users, the average consumption per user, and the street price of drugs, illustrating the problems of arriving at an estimate for cannabis, ecstasy and amphetamines, heroin and cocaine (as well as other illegal activities). The importance for European and international policy of including estimates of the illegal economy within gross national income is highlighted in the paper.

From use to problem use

There are many theories which attempt to explain the shift from substance use without related harm to problem substance use where the user risks harm or experiences problems. *Gateway theories*, for instance, suggest that once a young person begins to use a drug – often tobacco or alcohol in the first instance – there is a greater risk that that person will move on to use other drugs with the increased likelihood of becoming addicted. (Kandel *et al.* 1992). Degenhardt *et al.* (2010) uses WHO data to examine this theory and concludes that the *gateway* pattern partially reflects unmeasured common causes rather than the causal effects of specific drugs on the use of other drugs. A wide range of psychological theories are reviewed by Velleman (2009) in considering how children and young people learn about and behave towards alcohol. Velleman examines the explanatory value of attitudes, expectations, and intentions, covers theories on peer and family influence, and discusses risk and protective factors

which may pre-dispose to the harmful use of substances. Research into risk factors to examine causal theories of the relationship between substance use and harm or to establish and test for potential associations between patterns of substance use and harm has generated a large body of literature. While these studies are informed by a range of theories, they are often epidemiological in approach and provide a picture, based on individual level data, of use and problem use at population level. (World Health Organisation publications provide good examples of this type of approach)

A different perspective is offered in the paper by *Rhodes 2002*, in this volume. Rhodes picks up the concept of risk, arguing that despite acknowledgement of environmental determinants of health (and drug use), especially in western industrialized nations, there has been a focus on individual risk behaviour. Rhodes develops the concept of *risk environment* which he defines as ‘the space – whether social or physical – in which a variety of factors interact to increase the chances of drug-related harm’. This shift in the unit of analysis from the individual to the environment is theoretically important in that it also entails a move away from psychological concepts which promote a conception of risk as a product of cognitive health beliefs and reasoned risk assessment. Rhodes argues that such theories assume an overly calculative and context free notion of risk decision making which fails to capture how risk, and the perception of risk, is context dependent.

Explaining addiction

Much of the theoretical literature has been concerned with the examination of *addiction* or *dependence*. Is it a *bad habit*, an *excessive appetite*, a *brain disease*, a *genetic vulnerability* or some combination of these? Six papers in this volume illustrate different theoretical understandings of addiction to, and dependence on, alcohol and drugs.

Reinert 1968 proposes reconsideration of the 'old but common-sense notion' that alcoholism is fundamentally *a bad habit*. This paper was published at a time when the *disease* concept had re-emerged within a clinical, medical framework (as opposed to the earlier notion of *disease of the will*, discussed in volume one). As Reinert notes, the *bad habit* explanation draws on learning theory. From an analysis of the similarities and dissimilarities between addiction to tobacco and to alcohol, the author reaches the conclusion that the phenomenon of addiction is too widespread to justify looking for explanations in aberrant physiology or psychology. It seems closer to being a universal condition of human beings which must be explained by some more universal mechanism. Reinert argues that, the concept of *bad habit*, which can incorporate physiological and psychological factors as contributing determinants, is evidenced in the findings from sociological studies which explain the process of learning to be an alcoholic. Much later, Heather (1990) was to produce the book 'Problem Drinking' which critiqued disease theories of addiction and outlined an approach which discussed *problem drinking* as an example of learned behaviour.

Heather 1998 also turned his attention to the understanding of drug addiction and drug dependence commenting that 'Logically, addiction can be defined in any way the definer thinks fit; the crucial issue is how useful the definition is for specific purposes.' The development of an adequate scientific understanding of repeated, harmful drug use, he contends, should be the most relevant issue. Heather discusses three levels of explanation for addiction: the lowest level concerns biological and physiological effects of drugs; at the middle level is the experience of strong 'desire' for drugs (a contested issue) and the possible relationship between the lower and middle levels; at the third level, which is crucial to understanding addiction, explanation is needed for why drug users keep returning to drug use after attempts to cease. Finally, Heather argues that theories of compulsion can no longer explain addiction. The reason, he suggests, is that addiction has increasingly been seen as a *motivational* issue which involves conflict, ambivalence and decisional processes on the part of the user (a view based on psychological theories). He concludes that what is needed is theory which can articulate '...the difficulty habitual drug users experience in changing their behaviour while at the same time avoiding the implication that they have no choice in the matter'.

Psychological theories also underpin the work of *Orford 2001*. (Note: his book 'Excessive appetites' was published in 1985). By adopting and explaining the concept of *excessive appetites*, Orford's work was important in broadening understanding of addiction to other risky behaviours such as gambling, eating and 'straight sex'. Orford challenges the separateness of alcohol, drugs and other addictive behaviours, arguing that if the arbitrary and superficial differences between the fields of study are set aside, it opens the way for theoretical development and exchange. He provides an overview of explanations for the initiation and amplification of *excessive appetites*, drawing on a range of psychological theories including the psychology of constraint and conformity and on developmental theory, in particular learning theory. The implications for treatment – and for desisting from the behaviour without treatment – are discussed, demonstrating how theoretical shifts have the potential to influence responses to addiction. (cf Alexander, 2008, for a wide ranging discussion of addiction in many forms: this work critiques theories of addiction by questioning the medicalisation and criminalisation of some types of addiction compared to others. Alexander proposes a different theory which suggests that addiction is the result of, and an adaptation to, severe social, economic, and cultural *dislocation*).

Leshner 1997 draws on a different set of theories in contemplating addiction. Referring to studies of returnees from the Vietnam war (see Robins *et al.*, 1975, in volume one), the author acknowledges the importance of social contexts in the development and cessation of addiction. However, he discusses advances in knowledge which, he argues, have revolutionised understanding of drug abuse and addiction. Studies undertaken in neurosciences and in behavioural sciences have revealed major differences between the brains of addicted and non-addicted individuals and have indicated some common elements of addiction, regardless of the substance. There is, he argues, a gap between public understanding and responses to drug addiction – often seen as a social problem requiring social, especially criminal justice, responses - and the scientific facts which indicate that addiction is a health problem. Prolonged drug use can alter brain structure and function – which makes it a *brain disease* – so that the individual moves into a 'state of addiction', characterised

by compulsive drug seeking and use. The understanding of addiction as a chronic relapsing disease of the brain has implications for treatment and, Leshner suggests, better understanding of the biological mechanisms underlying the changes in the brain is key to developing more effective treatment and medication.

The view that drug dependence is a *chronic mental illness* is the focus of the paper by *McClellan et al 2000* who agree that dependence is marked by significant and persistent changes in brain chemistry and function. The paper begins with a review which compares drug dependence with three other chronic relapsing conditions - type 2 diabetes mellitus, hypertension, and asthma – demonstrating the value of comparative work across subject areas in building theoretical understanding. An overview of explanations for addiction and other chronic conditions is provided, inclusive of genetic vulnerability, individual characteristics and lifestyles, and pathophysiology. The paper ends with a consideration of different treatment approaches for drug dependence and other conditions, arguing that different criteria of ‘success’ have been applied and that the care and monitoring strategies adopted in treatment for other chronic conditions should be used also in monitoring treatment for drug dependence.

In Volume one, we discussed the emergence and early evolution of the *disease* concept. The paper by *Edwards and Gross 1976* highlights the continuing development of concepts and theory throughout the 20th century. They mention the contribution of Jellinek (1960) whose classification of alcoholism into types influenced policy and practice and inspired subsequent research. In 1964 a WHO Expert Committee introduced the term *dependence* and in their classic paper, Edwards and Gross show how clinical observation and impression can lead to the development of theory. Based on clinical experience, they sketch out the elements of the *dependence syndrome* - a narrowing in the repertoire of drinking behaviour, salience of drink-seeking behaviour, increased tolerance to alcohol, repeated withdrawal symptoms, repeated relief or avoidance of withdrawal symptoms by further drinking, subjective awareness of a compulsion to drink, and reinstatement of the syndrome after abstinence. The authors recognised that the scientific basis for the syndrome was

still missing. Further work by the authors (e.g. Edwards 1986) and others (e.g. Skinner and Allen 1982) took up the issues of the validity of the syndrome and how to measure it. Theory on the *alcohol dependence syndrome* was broadened to include other drugs (Kosten *et al.* 1987) and influenced major classification systems, although subsequent research both debated the syndrome and refined its measurement (Li *et al.* 2007).

Building and ‘combining’ theory

From the papers discussed so far, it is clear that understanding and knowledge of alcohol and other drug use has advanced through the involvement of researchers from different disciplines. Two papers provide accounts of the contribution of two very different disciplines, anthropology and epidemiology. The papers raise issues concerning the relative contribution to theory building of different disciplines and indicate some of the factors which influence the impact of different disciplines on knowledge and theory development. *Hunt and Barker 2001* review anthropological studies and reflect on the contribution, and critiques of the contribution, of anthropology to theory building. They argue that anthropology has made a less major impact than might be expected, due, in part, to an alcohol and drug research agenda that is dominated, on the one hand, by bio-medically, epidemiologically and psychologically inspired theories of the individual, and, on the other hand, of bio-pharmacologically dominated views of the substance. They draw attention to the influence on research – and, therefore, on theoretical understanding – of the source of research funding which tends to foster particular disciplinary and methodological approaches. The authors outline a possible alternative approach for anthropology which borrows from a number of different theoretical insights. Their aim is to move towards a unified theory and bridge the impasse between the socio-cultural and biological sides of alcohol and drug research without compromising anthropology’s key role in providing a cultural critique of contemporary society and its unique ability to describe and analyse the place of ingested substances in social life.

In the second paper, the rise of epidemiology and its contribution to understanding patterns of substance use, problem use and associated harms is addressed by *Mold (2007)*. The paper illustrates how epidemiology as an approach gained its ‘authority’ in the 1950s through establishing a causal link between smoking and disease. As a result, Mold tells us, epidemiological methods became accepted by the medical profession as a way of explaining the aetiology of disease. Use of epidemiological methods and theories also placed the emphasis on the role of individual behaviour and lifestyle in disease causation and strengthened a public health vision of substance use and misuse. Epidemiology has played an important role in constructing new concepts, in defining problems from a public health perspective and in influencing policy (cf discussion in volume three on prevalence studies).

The notion of combining theoretical approaches or of producing an overarching theoretical perspective has been touched on already in papers discussed above and, clearly, many researchers acknowledge that combined approaches are needed to illuminate the complexities of substance use and use behaviours. West (2006), for example, has proposed a *prime theory of motivation* which brings together what is known about motivation and offers a new model to explain and predict behaviour. The theory is largely psychological but West aims to provide a coherent framework, a ‘pegboard’, into which a whole range of theories – including neurophysiological, economic and social – can be plugged and which is able to incorporate new findings.

Another attempt at a comprehensive approach, the *transtheoretical* model, derived from work by Prochaska and DiClementi (1983) on smoking. Prochaska and DiClementi’s research led to the development of *the cycle of change* model which provided a way of understanding how behaviours change over time through delineating a number of stages of change along with the processes of change at each stage. The model became extremely popular with therapists across the addictions field and has persisted despite, as Davidson (2001) recounts, considerable criticisms. Thombs (1999) has commented that the *transtheoretical* model is not a theory as such: it is a framework within which to organise existing theories and constructs to explain the different stages of the *cycle of change*. (For a more detailed description

and review of the evidence for the stages of change model see: Whitelaw *et al.*, 2000). But as Davidson (2001) points out, its creators stressed that they were developing a model, not a theory, and despite its limitations, the model continues to prove useful in practice and as a stimulant for research.

The final paper in this volume draws attention to the nature and source of the knowledge from which theory is constructed. Typically, knowledge about substance use and addictive behaviours is derived from research on samples of individuals (groups or populations) and used to construct or test theory. The many varied methods for collecting information are discussed in volume three but *how* data is collected and *by whom* is relevant to issues of how knowledge – and theory – is constructed. Roy 2012 considers the growth of *participatory research* strategies since the late 1990s. Participatory research strategies aim to shift the balance of power between the researcher and the researched and to facilitate communities to become co-producers of research (knowledge). Behind the ideal reside many problems regarding its practice and use in specific projects. Roy uses the example of drugs, race and ethnicity to discuss the modes of participatory research which have emerged, to analyse influences on the form taken by participatory research approaches, to critically review the objectives, and to assess the influence on projects of adopting a participatory approach. While the roots of participatory research approaches could be traced at least as far back as Arnstein's (1969) ladder of participation, this issue has increasing contemporary relevance. Recent theorists, working largely in the field of sustainability science, have called for a broader approach to developing the knowledge base for policy and practice. The rise of what has been termed '*civic science*' recognises the experiential knowledge of practitioners and more broadly citizens' knowledge, as well as the lived experience of users as legitimate in the production and use of scientific knowledge (Glasby and Beresford 2006; Backstrand, 2004). The possible outcomes for theory development from these participatory approaches are not entirely clear. As Roy remarks, *participatory research strategies* may be seen as democratising the research process but they do not guarantee better data or improved understanding or better theories.

Conclusion

The papers in this volume provide an overview of some of the theories which have had an impact on understanding of alcohol and drug use and addiction. They illustrate ways in which new theories emerge and evolve over time: they highlight how critiques of theories arise and reflect different disciplinary perspectives: they reveal tensions in the field between disciplines and discuss approaches which attempt to synthesise theories and build bridges across disciplinary boundaries: and they invite consideration of how knowledge and understanding are produced and the processes by which theories are generated. The papers have introduced many core concepts – *set and setting*, *sub-culture*, *risk environment*, *normalisation*, *dependence syndrome*, *excessive appetites* and so on. All of these concepts are located within specific theories and derive their meaning from their theoretical location. It is important, in reading the papers in all six volumes to reflect on the theoretical foundations of concepts and on the factors which influence their emergence, change over time and, ultimately, their meanings. Whether explicitly or implicitly, the papers in all six volumes include theory, and concepts, themes and issues introduced in this volume will be repeated and expanded on in other volumes.

Note

1. http://europa.eu/legislation_summaries/budget/134005_en.htm,

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