THE LIBRARY ON DRUG ABUSE AND CRIME

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Volume II

Mangai Natarajan

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Series Preface

Ever since the Shanghai Opium Commission in 1909, many countries around the world have found themselves grappling with problems of drug abuse and many conventions have formulated proposals to reduce the international trade in illicit substances. International collaborative efforts and policies have mostly been geared to obstructing the supply of drugs, while efforts to control demand have been left to national governments.

During the latter part of the 20th Century, a number of factors conspired to promote large programs of research in countries such as the United States on the etiology and epidemiology of drug abuse as well as on the drugs-crime relationship. These factors included a rapid growth in drug abuse, the diversification in drugs used, and a greater recognition of the social and medical harms resulting from drug abuse. In this latter respect, the spread of HIV infections was an important catalyst in stimulating research.

In 1995, the International Library of Criminology, Criminal Justice and Penology Series published a two-volume series on Drugs, Crime and Criminal Justice edited by Nigel South. The first volume examined social histories of drug use; theoretical perspectives and epidemiology; controls, treatment and prevention; and the ever-lively debate about the war on drugs versus calls for decriminalization. The companion volume covered drug use lifestyles and cultures, drug markets and drug distribution. It also dealt with the relationship between drugs and crime and with responses from a criminal justice and enforcement perspective.

Since the publication of South's volumes, an enormous amount of drugs-related research has appeared in print and the Library of Drug Abuse and Crime was launched to provide convenient access to the best of these studies in three volumes. The volumes cover between them the worldwide status of drug abuse, the drugs–crime connection and the prevention and treatment of drug abuse, including policies to reduce the supply of drugs and efforts made by scientists, practitioners and international organizations to reduce the consumption of drugs.

Each volume is a collection of the most significant peer reviewed journal articles from a variety of relevant disciplines including economics, science, sociology, psychology, criminology, criminal justice, medicine and social work. To be included, an article must hold relevance beyond the country where it originated. Most of the articles provide not only a thorough review of literature, but also an intellectual critique of the relevant studies. In addition, they identify gaps in research and policy relating to drug abuse and crime. Taken together the three volumes offer an invaluable resource to students and scholars interested in all aspects of drug abuse and crime.

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Introduction

This compendium of essays is the second in a three-volume set dealing with drug abuse. The volumes build on *Drugs, Crime and Criminal Justice* a two-volume set edited by South (1995).[1] Since the publication of South's volumes an enormous amount of drugs-related research has appeared in print, and this new set of volumes is intended to provide convenient access to the best of these studies. The first volume deals with the status of drug abuse worldwide and the third volume with the treatment/prevention of drug abuse. This volume is concerned with the relationship between drugs and crime.

The volume is divided into two Parts. In Part I, the question of the relationship between drugs and crime, which has so many important theoretical and policy implications, is explored under three headings: Drug Abuse and Crime; Drug Abuse and Juvenile Delinquency; and Drug Abuse, Violence and Victimization. Part II is devoted to drug-related crime, which it examines under two headings: Drug Trafficking and Drug Distribution; and Drug Markets and Local-Level Dealing.

The 23 essays reprinted here were selected from more than 300 English-language essays identified in an exhaustive review of the literature. All the reprinted essays were initially published in peer-reviewed, national and international journals. Most of them are quite recent and they contain critical reviews of past literature on the topics they cover. Each essay selected for inclusion was expected to meet at least one of three criteria: it should help advance future research, it should contribute to theory, or it should assist policy thinking. Because this volume is intended for an international readership each essay also had to meet one final criterion – it had to have relevance beyond the country where it originated. Not every country plagued by drug abuse has the resources to undertake its own research, and it is vital that these countries, in particular, can learn from research undertaken elsewhere.

Questions about Drugs and Crime

A recent meta-analysis of 30 research studies[2] on the drugs crime connection in the United States, Canada, the United Kingdom, Spain, Greece, Belgium, Finland and Australia confirms

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[1] South's first volume examines social histories of drug use; epidemiology; controls, treatment and prevention; theoretical perspectives; and the ever-lively debate about the war on drugs versus calls for decriminalization. The companion volume covers drug-use lifestyles and cultures, drug markets and drug distribution. It then turns to the research literature on relationships between drugs and crime and concludes with a section on responses from a criminal justice and enforcement perspective.

[2] The studies comprised: Santo *et al.* (1980); McBride (1981); Hunt, Lipton and Spunt (1984); Mott (1986); Wish (1986); Dembo *et al.* (1987); Parker and Newcombe (1988); Johnson *et al.* (1991); Harrison and Groeffer (1992); Kuhns, Heide and Silverman (1992); Kokkevi *et al.* (1993); Nurco, Kinloch and Balt (1993); Dembo, Williams and Schmeidler (1994); Graham and Wish (1994); Johnson *et al.* (1994); Klee and Morris (1994); Webb and Delone (1996); Morentin, Callado and Meana (1998); Hammersley *et al.* (1999); Makkai and Feather (1999); Bennett (2000); French *et al.* (2000); Hawke,

that the odds of offending are three to four times greater for drug users than non-drug users (Bennett, Holloway and Farrington, 2008). Despite this consistency of research, the nature of the link between drugs and crime is still not well understood. Thus, it is not clear, for example, whether drug dependency leads to crime (as widely believed by the public), or whether involvement in crime increases the probability of drug dependency. To take the first question, concerning whether drug dependency leads to crime, this is difficult to answer because any criminogenic effects of drugs on crime are mediated by a great many variables, including the nature of the drugs (which have different physiological effects), the user's degree of dependency on the drugs, the life circumstances of the user, the conditions under which the drugs are used (including the social context), the laws governing obtaining and using drugs, social tolerance of drug use, availability of drug treatment programmes and so forth.

If this were not sufficiently complex, there are many ways in which drugs and crime could be related that encompass and extend beyond the simple causal link between drug dependency and crime. These include the following propositions falling under Parts I and II of this volume, the drugs–crime connection and drug-related crime:

The drugs–crime connection

1. Drug abuse and crime stem from common root causes.
2. Those under the influence of drugs are more likely to be violent.
3. Drug-dependent people commit property/economic crime to feed their habit.
4. Drug-dependent women engage in prostitution to pay for drugs.
5. Drug-dependent people are more open to criminal exploitation and violence.
6. Criminal lifestyles promote drug abuse.
7. Drug dealers are more likely to become drug users themselves.

Drug-related crime

8. Drug dealing is a source of money for criminals.
9. Competition between drug dealers leads to violent confrontations and shootings.
10. Drug dealing promotes, and is promoted by, juvenile street gangs.
11. Drug trafficking promotes drug abuse by increasing the supply of drugs.
12. Drug trafficking promotes corruption and destroys social controls in supply countries.
13. Drug trafficking is a rich source of profit for organized crime.
14. Drug trafficking is a source of income for terrorists.

This list is just a sample of the many kinds of possible relationships between drugs and crime, but it hints at the vast size of the programme of research needed to explore them. Some of these relationships have attracted more research than others have, and the quality of the research also varies. For example, much less research is available on drug trafficking than on street-level dealing. This is partly because drug trafficking is a more complex process than drug dealing, involving not just the process of selling to consumers, often on the street, but other processes higher up the supply chain. These include: the initial production of the drugs; collecting together and transporting supplies to some shipment point; exporting the drugs by

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Jainchill and DeLeon (2000); Farabee, Joshi and Anglin (2001 – Chapter 2, this volume); Gilchrist *et al.* (2001); Turpeinen (2001); Yacoubian *et al.* (2001); Born and Gavray (2002);Yacoubian *et al.* (2002); Holloway and Bennett (2004).

land, sea or air; receiving the drugs at some distribution point in the receiving country for wholesale supply; and selling and distribution of the drugs to retailers. A second reason for the relative paucity of research on trafficking is that these processes are much more difficult to study and observe than street-level dealing, which is often accomplished in the full view of even the police.

The Drugs–Crime Connection

To document and explore all the possible links identified in the research literature between drugs and crime would require a much larger volume than the present one. In any case, the quality and amounts of research on these links varies considerably. In keeping with the volume's objective of reprinting the best studies in the field, it was decided to narrow the focus of Part I to three broad areas: drug abuse and crime; drug abuse and juvenile delinquency; and drug abuse, violence and victimization.

Drug Abuse and Crime

Research findings report, with a reasonable degree of consistency, that crime precedes drug use and, when the individual is involved in both drugs and crime, the relationship becomes reciprocal (see D'Amico *et al.*, 2008; Quinn and Zach, 2008; Ford, 2005; Simpson, Chapter 3, this volume; White and Gorman, 2000; Chaiken and Chaiken, 1990). However, the relationship might not be constant across the life course and may be different for youths and adults. This means that it is necessary to explore in detail the developmental sequencing of involvement in drug use and crime. It is also important to determine the degree to which adolescent crime and substance use are risk factors for adult forms of these behaviours. In all this work, it must be recognized that the relationship between drugs and crime is highly specific to both the nature of the drugs and of the crimes and is also dependent on degree of dependency. Most research has focused on 'dependent drug users' and their involvement in crime, but it is also important to look at other kinds of user, such as 'recreational users', 'casual users' and 'persistent, but non-dependent users' in order to understand the complexities of drug-using careers and criminal careers.

A further complication lies in the recent emergence of poly-drug use and abuse since there are a number of plausible reasons for suspecting that drugs used in combinations might have particular effects on crime. These include direct effects, such as the potential interactive or additive effects of drug mixing on judgement or behaviour, and indirect effects, such as the potential amplifying effect of involvement in drug misuse on offending (or vice versa). Finally, because drug abuse and crime are to some extent the products of local social contexts and environments, it is important to understand how the local dynamics of drug cultures might be related to specific criminal activities (Manzoni, Fischer and Rehm, 2007). These and other questions are addressed in the essays selected for reprinting in this section.

In Chapter 1 Scott Menard, Sharon Mihalic and David Huizinga examine the drugs–crime relationship in adolescence from a developmental perspective, using data from nine waves of the National Youth Survey (NYS) for 1,725 respondents who were 11 to 17 years old in 1976, the first year for which data were collected, and 27 to 33 in 1992. The findings indicate that the drugs–crime relationship varies with age and with different stages of involvement in

crime and drug use: initiation, continuity and the transition from adolescence to adulthood. Substance use and crime appear to be related more closely in adolescence than in adulthood. For most individuals, involvement in crime preceded initial use of drugs. At a later stage of involvement, however, serious illicit drug use appears to contribute to continuity in serious crime, and serious crime contributes to continuity in serious illicit drug use.

David Farabee, Vandana Joshi and Douglas Anglin (Chapter 2) examine the relationship between addiction careers and lifetime participation in predatory, victimless and non-specialized offences. They used interview data from a sample of 7,189 clients in US cities included in the Drug Abuse Treatment Outcome Studies. They find that predatory offenders tended to begin their addiction careers at earlier ages than victimless offenders, but after they had already initiated their criminal careers. Offenders who segued into criminal careers via their addiction careers were more likely to participate in victimless crimes than in predatory crimes. Non-specialized offenders, however, were less likely to begin their addiction career prior to their criminal careers and were more likely to be dependent on illicit substances than on alcohol. Dependence on cocaine, heroin, or both, relative to alcohol, was associated with greater criminal diversity but a reduced likelihood of participating specifically in predatory crimes.

Mark Simpson's study (Chapter 3) explores the relationship between crime and three different kinds of drug-using careers: 'recreational drug use', 'dependent drug use' and 'persistent drug use'. The study reports the results of participant observation and ethnographic interviews with 88 young people aged between 16 and 24, in a town in the north-east of England. For some of the subjects, drug use was funded through both legitimate and illegitimate activities. Crime often pre-dated drug use, and subsequent involvement in recreational drug use became a further expense to be funded through crime. Their involvement in drug dealing was justified by viewing it simply as helping out their friends and, in this respect, reflects the normalization of the drugs culture. Some persistent drug users commit crime over a long period to fund their habit, while dependent drug use accelerates criminal involvement.

In Chapter 4 Trevor Bennett and Katy Holloway use interview data from 3,135 arrestees subject to a drug abuse monitoring programme in the United Kingdom to study the relationship between multiple drug use (use of two or more drugs over a 12-month period) and ten types of acquisitive crime, including vehicle crime, shoplifting, burglary, robbery, theft from a person, handling, fraud, and drug dealing. They find a significant correlation between the prevalence of multiple drug use and both the prevalence and rate of offending. Specifically, multiple drug users who offended reported on average twice as many offences as single drug users who offended. Multiple drug users, who included heroin, crack, and cocaine in their drug combinations, committed a greater number of offences on average than multiple drug users who used only recreational drugs. Multiple drug users who used heroin and crack and who also used heroin substitutes, recreational drugs and tranquilizers had higher offending rates than multiple drug users who used heroin and crack without these additional drug types.

The drugs–crime connection in South Africa is examined by Charles Parry, Andreas Plüddemann, Antoinette Louw and Ted Leggett in Chapter 5. They employ two forms of data: urinalysis data for six drugs (including methamphetamine, cannabis, cocaine, opiates, benzodiazepines and Mandrax) and detailed questionnaire data from 1,050 adult arrestees in police stations in three large cities in South Africa (Durban, Johannesburg and Cape Town). They report six principal findings:

1. There were high levels of drug use among arrestees, with 45 per cent testing positive for at least one drug (mainly cannabis and Mandrax).
2. A greater proportion of arrestees in Cape Town tested positive for drugs than in the other locations.
3. Those arrested on charges of housebreaking or for drugs/alcohol offences were particularly likely to test positive for drug use.
4. Drug-positive arrestees were more likely to have been arrested previously.
5. Almost half of those arrested on charges of (attempted) murder or rape or on weapons charges tested positive for drugs.
6. Arrestees aged 20 years and younger had the highest proportion of persons testing positive for at least one drug (mainly cannabis and/or Mandrax).

Their results show that the local dynamics of drug cultures are related to specific criminal activities.

Drug Abuse and Juvenile Delinquency

In many countries young people are at high risk of involvement in drug use, drug sales and other criminal activity. Many studies have confirmed that a positive relationship exists between delinquency and the early onset of drug use. Further, a high percentage of violent and anti-social adolescents acquire a record of lifetime substance abuse. Firm as these findings may be, their interpretation is far from clear. Some investigators argue that drug abuse is just one manifestation or complication of a more general adolescent conduct disorder. Others see crime and drugs as being causally related, with involvement in one leading to involvement in the other. For example, delinquent youths are more likely to be exposed to illicit drugs and aggressive, anti-social youths may be more likely to experiment with them. On the other hand, drug-abusing youths are more likely to turn to crime than other youths in order to fund their habits. These various explanations continue to attract large programmes of research because of the urgent need to develop effective preventive and treatment interventions for this vulnerable group of young drug abusers.

In Chapter 6 Richard Dembo and colleagues test the relationships between adolescents' participation in drug sales, drug use and index crimes on the basis of one- and two-year follow-up interviews with 164 youths processed at Hillsborough County Juvenile Assessment Center. Drug abuse was measured by a modified National Household Survey on Drug Abuse (NHSDA) questionnaire, and the interviews gathered information on how many times the youths engaged in 23 delinquent behaviours in the year prior to their initial interviews. The three-wave longitudinal structural equation model of drug sales, drug use and involvement in index offences revealed significant coterminous and crossover relationships among these variables at each time-point. In particular, significant longitudinal relationships existed between involvement in drug sales and index offences, as well as between index offences and drug sales. Strong autoregressive relationships were found for involvement in drug sales, drug use and index offences.

Ian McAllister's and Toni Makkai's study (Chapter 7) reports the results of the 1998 National Drug Strategy Household Survey of 2,419 young Australians aged 16 to 25 years. The study found that 10 per cent of young Australians had engaged in some form of anti-

social behaviour in the previous year and that such behaviour peaked at almost 20 per cent of males by age 19. Logistic regression analyses indicated that participation in anti-social behavior is strongly related to the age of initiation of drug use and the lifetime prevalence use of marijuana, hallucinogens and amphetamines for both males and females.

Using self-report data from 596 males aged 16 to 19 in Buffalo, New York, John Welte, Lening Zhang and William Wieczorek. (Chapter 8) examine the causal relationship between substance abuse and delinquency. In order to determine the temporal order of changes, two interviews were undertaken with each subject within an 18-month period. Cross-lagged and synchronous structural equation panel models for both early and late onset of delinquency indicated that early onset models show no causal relationship between substance use and five kinds of delinquency (minor, general, serious, property and violent). The late onset models show that minor offences have significant lagged and synchronous positive effects on drug use, while drug use exhibits significant lagged and synchronous positive effects on general offences.

In Chapter 9 Marsha Rosenberg and James Anthony use data from the National Household Survey on Drug Abuse for 4,373 youths aged 12–17 years to examine how aggression, delinquency and drug use might be linked, specifically focusing on whether aggressive and delinquent youths are more likely to enter settings where drug dealing is more prevalent. They found that the most aggressive youths were about five times more likely to be offered drugs for purchase, but this association was much attenuated when levels of delinquency were taken into account. They also report that the most delinquent youth were more than ten times as likely to encounter opportunities to purchase drugs, independent of aggression.

Drug Abuse, Violence and Victimization

In the mid-1980s, Paul Goldstein (1985) provided a three-part model (incorporating pharmacological, economic compulsivity and systemic influences) for understanding the relationship between drug abuse and violence. He pointed out that different drugs are related to different crimes in different ways. In terms of homicide, he showed that the alcohol relationship was primarily psychopharmacological in origin and the cocaine relationship was primarily systemic and economic. Goldstein argued that drug use may contribute to a person behaving violently, or it may alter an individual's behaviour in such a manner as to bring about that individual's violent victimization.

A slightly different tradition of research, represented in the chapters in this section, has examined the association between family violence and drug abuse among women. These studies have shown that social environments and drug-using lifestyles may expose women in particular to violent victimization. According to Hequembourg's, Mancuso's and Miller's (2006) study of 609 women aged 18 to 65 years, from Buffalo, New York, childhood victimization and adult partner victimization remained by far the strongest predictor of women's drug-related activities, and the relationship was mediated by social factors, including parental or partner history of substance use, lack of education and an absence of a family/household income above the poverty level. But studies have also shown that the relationship between drug abuse and victimization of women can become a vicious cycle in which substance use increases the risk of future assault and assault increases risk of subsequent substance use.

In Chapter 10 Jerome Cartier, David Farabee and Michael Prendergast (2006) use self-report data from 641 state prison parolees in California to examine the statistical associations between methamphetamine use and three measures of criminal behaviour: (1) self-reported violent criminal behaviour; (2) return to prison for a violent offence; and (3) return to prison for any reason during the first 12 months of parole. After controlling for involvement in the drug trade (that is, sales, distribution or manufacturing), regression analysis found that methamphetamine use was significantly predictive of self-reported violent criminal behaviour and general recidivism (that is, a return to custody for any reason).

Nabila El-Bassel and colleagues (Chapter 11) studied 145 African-American and Latina women who were participants in methadone maintenance treatment. After adjusting for potentially confounding variables, they found that women who reported current, regular crack/cocaine use were 2.8 times more likely than their counterparts to report current partner violence and women who reported current, regular use of marijuana were 3.4 times more likely to indicate current partner violence. Further, they found that abused women were more likely than non-abused women to have visited shooting galleries, lived with someone with drug or alcohol abuse problems, and exchanged sex for money or drugs.

In Chapter 12 Dean Kilpatrick and colleagues address the temporal sequence of the relationship between active drug use and the risk of victimization for violent assaults, using a national-level probability sample of 3,006 women followed-up for two years. Active drug use was found to be associated with increased risk of victimization for women who had been previously assaulted. At first interview, lifetime and new assaults were associated with increased odds of alcohol abuse and drug use. Women reporting drug use at the second interview were almost twice as likely as women without drug use to have experienced an assault, even after controlling for effects of demographic variables and lifetime assault reported at first interview.

Using interview and focus group data, Hilary Surrat and colleagues (Chapter 13) examine the intersections of childhood trauma, drug use and violent victimization for a sample of 325 active crack- and heroin-using sex workers aged 16–49 in Miami in 2001–2002. All those included in the study had: (a) traded sex for money or drugs at least three times a week in the previous 30 days; and (b) used heroin and/or cocaine three or more times a week in the past 30 days. Nearly half (44.9 per cent) of the respondents reported physical and/or sexual (50.5 per cent) abuse as children, and over 40 per cent experienced violence from clients in the prior year: 24.9 per cent were beaten; 12.9 per cent were raped; and 13.8 per cent were threatened with weapons. Thus, their substantial involvement in drug use and sex work resulted in many violent encounters in their daily lives. Finally, the study found that the prevalence in the sample of both physical and sexual victimization in childhood and adulthood was very high compared to national estimates.

Drug Crimes

The ten essays in Part II of this volume are devoted to drug-related crime, which is examined under two headings: drug trafficking and drug distribution; and drug markets and local dealing.

Drug Trafficking and Drug Distribution

Most research on the supply of drugs has focused on retail or 'street-level' dealing. Consequently, a considerable amount is now known about the organization of drug dealing at this level (Curtis and Wendel, 2000) and about the individuals involved, the roles they play, their strategies for avoiding detection, their own use of drugs, and the profits they make from selling. In contrast, much less is known from research about drug trafficking, which can be defined as the production, smuggling and wholesale distribution of drugs. This is partly because drug trafficking is a more complex process than drug dealing, but also because trafficking is much less open to ethnographic methods and thus more difficult to study and observe than street-level dealing.

Nevertheless, there is reasonable agreement among the leading researchers involved (cf. Pearson and Hobbs, 2001; Reuter, 2004) on two important propositions, the first of which is that drug trafficking does not seem to be controlled by tightly organized, hierarchical crime groups with global presence. Even the Medellin and Cali 'cartels' seem to be only loose syndicates of independent entrepreneurs, who sometimes collaborate but also compete with each other and with other, smaller organizations.

Second, it is generally agreed that considerable variety exists among drug-trafficking groups. Some larger 'corporate' style groups exist, and there are also some fairly large 'family' businesses or ones founded on ethnic ties among individuals with links to source countries for drug production. However, most drug-trafficking networks are small, and are led by one or two individuals who have contacts with a limited number of producers or wholesalers and employ small teams of runners, who in turn collect and deliver drugs to retailers (see Natarajan and Belanger, Chapter 14, this volume). This variety is consistent with the prevailing view that illicit drug markets are competitive, rather than monopolistic (Dorn, Murji and South, 1992; Reuter and Haaga, 1989; Adler, 1985). Competition attracts a variety of participants, with varying resources, skills and contacts, who seek to meet different market needs resulting from the variation in drugs produced, in the means and place of production, in smuggling routes and in modes of transportation. This will lead to many differences between groups in terms of the tasks they perform, the way they operate and the way they are structured. Very little is known about these matters, betokening the need for an extended and detailed research programme designed to learn more about the structure of these groups, the roles of individual members, the network of contacts among them, the degree to which they specialize in particular tasks, the extent of communication within and between subgroups, and the degree to which they are geographically concentrated.

The main findings about trafficking are based on only a few studies (some of which are reprinted in Part II of this volume) and thus must be treated as provisional and incomplete. However, they are generally consistent with the findings of contemporary studies of organized crime, which have concluded that trafficking and smuggling, whether of humans, drugs or other commodities, are not generally committed by traditional organized crime groups. Rather, they are the province of small networks of entrepreneurs who are exposed to the opportunity to commit these crimes by family and ethnic ties, and engage in the crimes for personal profit rather than organizational gain. The networks might form quickly to accomplish specific transactions and be dissolved equally quickly once the tasks are complete (Guerette and

Clarke, 2005; Albanese, 2004; Clarke and Brown, 2003; Zhang and Chin, 2003; Klerks, 2001; Hobbs, 2001; Finckenauer, 2000; Kleemans and van de Bunt 1999; Fijnaut *et al.*, 1998).

In Chapter 14 Mangai Natarajan and Mathieu Belanger examine a sample of 39 drug-trafficking organizations prosecuted in New York City federal courts between 1984 and 1997. Using a two-dimensional typology based on organizational structure and tasks/roles, they identify a considerable variety of organizational types, ranging from small, loosely structured 'freelance' groups to large, hierarchical 'corporate' organizations. Organizations appeared to specialize quite narrowly in the tasks undertaken, but there is only a weak relationship between organizational type and these tasks. The small freelance groups were a little more likely to be involved in tasks higher up the distribution chain, whereas the larger organizations were somewhat more involved lower down. The largest 'corporate' organizations were generally involved in dealing at the retail level.

Letizia Paoli's study (Chapter 15) tests the entrepreneurial model of drug trafficking, using data from consumers, suppliers, law-enforcement personnel, public and private drug treatment providers and NGOs. The study which was undertaken in Milan (Italy) and Frankfurt (Germany) found that the great majority of drug deals, even those involving large quantities of drugs, seem to be carried out by numerous, relatively small and often ephemeral enterprises. Many dealers at the intermediate and lower level work independently, either to finance their own drug consumption habits or, more rarely, to earn fast money. Most of theses dealers have no contact with the underworld and are often inconspicuous people, who can hardly be distinguished from the mainstream population. The study also found that the nature of the relationships between drug-dealing enterprises are closer to competition than to collusion.

In Chapter 16 Mangai Natarajan (2006) reports an analysis of 2,408 wiretap conversations gathered in the course of prosecuting a heroin-dealing organization in New York City in the 1990s. The five-step analysis, which included a social network analysis of phone contacts, revealed a large, loosely structured group of 294 individuals, most of whom had very limited contacts with others in the group. The group's active core comprised 38 individuals with extended contacts, little status differentiation and some task specialization. It appeared that the 294 individuals comprised one segment of the heroin market in the city. The study supports recent analyses that see organized crimes, such as drug trafficking, as mostly the work of small groups of loosely linked entrepreneurs rather than large, highly structured criminal syndicates.

Given the limited amount of research into middle and upper levels of drug dealing, Geoffrey Pearson and Dick Hobbs (Chapter 17) provide a single case study that usefully illustrates a number of features of the operation of drug brokerage or 'middle-market' drug distribution. The researchers undertook prison interviews with both middle- and upper-level drug dealers and a range of enforcement personnel. They describe the complexities involved in the distribution strategies and explain how a small two-man outfit could occupy a king-pin role, buying and selling large quantities of drugs and linking into various other individuals and networks.

In Chapter 18 Vincenzo Ruggiero and Kazim Khan describe the spread of drug abuse in British South Asian (BSA) communities and the nature of drug supply networks. They interviewed 123 individuals, including BSA offenders in custody for drug supply-related offences, drug dealers and users outside prison, 'key individuals' with working knowledge of drug use/distribution among BSA communities, and law enforcers and treatment staff based