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COCAINE: THE HISTORY AND REGULATION OF A DANGEROUS DRUG

Gerald T. McLaughlin†

The use of cocaine in the United States was described until very recently as a decreasing phenomenon. In 1953, the United States Commissioner of Narcotics, H. J. Anslinger, contended that the drug was "very scarce on the illicit market."1 In 1955, the cocaine user was referred to as "a rare bird" among drug addicts.2 The California Bureau of Narcotic Enforcement reported in 1963 that "[t]he illicit use of cocaine in California [had] decreased appreciably in recent times and . . . no longer present[ed] the serious problems to law enforcement officers that it once did."3 As late as 1969, Doctor Sidney Cohen in his book The Drug Dilemma termed cocaine "a negligible factor in drug misuse, except among heroin users and isolated hipsters who will try anything."4

This euphoria was short lived. Cocaine has been experiencing a dramatic resurgence of popularity among drug addicts and other drug users.5 In 1970, the amount of illegal cocaine seized by the federal government surpassed for the first time the amount of heroin seized.6

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3 BUREAU OF NARCOTIC ENFORCEMENT, DEP'T OF JUSTICE, STATE OF CALIFORNIA, THE NARCOTIC PROBLEM, A BRIEF STUDY 10 (1963) [hereinafter cited as BUREAU OF NARCOTIC ENFORCEMENT].
5 See NEWSWEEK, Sept. 27, 1971, at 124. There have been periods in the past when there were similar dramatic increases in cocaine use. Such a period was 1948-1949. See TIME, April 11, 1949, at 44.
6 R. WOODLEY, DEALER: PORTRAIT OF A COCAINE MERCHANT 47 (1971) [hereinafter cited as WOODLEY]. In addition, the Bureau of Narcotics and Dangerous Drugs and the Bureau of Customs reported that cocaine seizures had increased from 305 pounds in fiscal year 1970 to 787 pounds in fiscal year 1971. Goldberg & DeLong, Federal Expenditures on Drug-Abuse Control, in DEALING WITH DRUG ABUSE: A REPORT TO THE FORD FOUNDATION 300, 309-09 (1972).

Information relative to the amount of drugs seized in the United States is of some value in ascertaining not only the extent, but also the rise and fall in the drug traffic. Since the "energy factor" of the law enforcement agencies concerned remains fairly constant . . . an increase in seizures implies an increase in the
A less dramatic but no less discernible increase can be seen in local police statistics. In Berkeley, California, for example, police reported a one-third increase in the amount of cocaine seized in 1971 over 1970. In New York City there were over 1100 cocaine arrests in 1971, an increase of more than 200 from 1970.

Although long considered a dangerous drug, cocaine has received surprisingly little treatment in the literature on drug abuse. There is need for a comprehensive study of the drug, its effects, and existing legislation regulating its use. Section I of this article considers the source, nature, and effects of cocaine. Section II traces the history of federal and state regulation of cocaine in the United States to 1970. Section III concludes with an analysis of existing federal and state regulation of cocaine.

I

THE DRUG

A. Coca—Source of Cocaine

Cocaine is produced from the leaves of the coca bush—primarily from *Erythroxylon coca*, a species of flowering plant indigenous to the quantities of drugs illegally smuggled into this country or diverted from the legal traffic.


7 POLICE DEPT., BERKELEY, CAL., ANNUAL REPORT 17 (1971).


9 There were 874 cocaine arrests in 1970. These figures compare with the more than 5,000 marihuana arrests in 1971 and more than 25,000 heroin arrests for the same period. City of New York Police Dep't, Narcotic and Drug Arrests, New York City, Years 1971-1970 (chart) (on file at the Cornell Law Review). These statistics may not present an accurate picture of the number of cocaine offenses, however. In a situation where multiple drugs are seized, the New York City police encode the arrest according to the most dangerous drug seized. Thus, if someone were arrested with heroin and cocaine in his possession, the arrest would appear as only a heroin arrest, thus undoubtedly reducing the number of reported cocaine offenses.

Western Hemisphere. The coca plant’s natural environment is the eastern slopes of the Andes Mountains, where it grows wild or in terraced plantations called “cocales” at altitudes of from 2,000 to 6,000 feet. The plant grows principally in Bolivia and Peru, although it may be found as far south as Chile and as far north as Colombia and Venezuela. In appearance, the plant resembles a blackthorn bush and will normally grow to a height of six feet in the coca plantations. Harvesting the leaves of a coca plant may begin when the plant is “two or three years old and continues for about twenty years.” Due to the rapid growth of the vegetation on the lower slopes of the Andes, there may be as many as four harvests of the coca plant each year.

The Indians of South America chew the leaves of the coca plant not only as a stimulant but also as an antidote for hunger and the fatigue resulting from working at high altitudes. Coca chewing is an ancient practice among the various Andean tribes. One American botanist has stated that the genus *Erythroxylon* is comprised of about 200 species of which *Erythroxylon coca* is but one. Rogers, “Divine” Leaves of the Incas, 72 NATURAL HIST., Jan. 1963, at 33 [hereinafter cited as Rogers]. Cocaine is derived from other species of *Erythroxylon* in addition to *Erythroxylon coca*. THE MERCK INDEX, AN ENCYCLOPEDIA OF CHEMICALS AND DRUGS 275 (P. Stecher ed. 8th ed. 1968).

The coca plant should be distinguished from the cacao tree. The cacao tree, from which cocoa and chocolate are produced, is predominantly found growing wild in Peru, Ecuador, and Colombia.

Because of similar climatic conditions, the coca bush has been successfully transplanted in Java, India, and Ceylon (see BUREAU OF NARCOTIC ENFORCEMENT 9), Formosa (see J. RICE, UPS AND DOWNS; DRUGGING AND DUPING 101 (1972), and certain areas of Africa. See WOODLEY 48.

The leaves of the coca plant resemble tea leaves. In color, they are dark green on the top and gray-green underneath; in shape, they are oval and tapered at the end; in texture, they are thin and almost opaque. A mid-vein runs the length of the leaf, paralleled by two veins on either side. The coca plant bears clusters of white flowers which are followed by red berries. See Hodge 89-90.

The coca plant can, however, grow much taller, particularly in its wild state. Hodge 39.

There may even be six harvests per year. Rogers 33. One reason for the multiple harvestings may be that the alkaloidal content (cocaine) in the leaves begins to decrease as the leaves grow older. See Wilbert, Progress in Pharmacy: A Quarterly Review of the More Important Advances in Pharmacy and Materia Medica, 78 AM. J. PHARMACY 574, 582 (1906).

The exact origins of coca chewing are not known. Indian legend, however, does provide one explanation. Khunu, god of thunder, lightning, and snow, was angered when the chiefs of the Yunga tribe permitted their people to burn the forests. The smoke from these fires blackened the god’s palaces on top of two snow-capped mountains. As a punishment, Khunu separated the Yunga people from their capital city, Tiahuanaco, forcing the
anist discovered coca leaves buried in prehistoric graves, some dating back as far as three thousand years. Although use of the coca plant among the Incas was originally confined to their political and religious leaders, the practice had spread beyond the ranks of the nobility by the end of the thirteenth century.

When the Spanish first arrived in Peru, they observed the Indians' habit of coca chewing. In a letter to the King of Spain, the Bishop of Cuzco wrote:

There is a leaf of a small tree which is like the sumac tree of Castille; it is an article which the Indians always have in their mouths when walking, and they say that it sustains and refreshes them in such a way that when they walk in the sun they feel no heat; and in this country it is worth like gold and it is the principal tax for tithes.

Although the Spanish initially outlawed coca chewing, believing it to be a "pagan practice," they soon recognized that coca was indeed "like gold," because it increased the work capacity of their Indian slaves. Reversing their original position, the Spanish provided the Indian miners with a daily ration of the leaves and came to view coca as a method of producing revenue.

It has been estimated that ninety percent of the Indians in the tribe to become nomads. Hungry and thirsty, the Indians discovered that by chewing coca leaves, they were given strength and did not feel the effects of the high altitude. In this way, the tribe succeeded in making its way back to the capital city. Grannier-Doyeux, From Opium to LSD, The Long History of Drugs, 21 UNESCO COURIER, May 1968, at 8, 11 [hereinafter cited as Grannier-Doyeux].

20 Rogers 35.

21 NATIONAL CLEARINGHOUSE FOR DRUG ABUSE INFORMATION, COCAINE 1 (Report Series 11, No. 1, Jan. 1972) [hereinafter cited as NATIONAL CLEARINGHOUSE]. At that time, the highest form of honor was the gift of some coca leaves from one's superiors. Id. at 1-2.

22 It is generally believed that the Inca Mayta-Capac, who lived in the middle of the thirteenth century, and one of his successors, Rocca, who died in 1315, were primarily responsible for spreading the practice. Grannier-Doyeux 11.

23 Although known to the Spanish for at least 200 years, it was not until the eighteenth century that the Swiss botanist Joseph de Jussieu brought a specimen of the plant to Europe for scientific analysis. Rogers 36. Jean Lamarck, the great French naturalist, classified the plant and gave it its botanical name, Erythroxylon coca. Id.

24 Hodge 86.

25 Rogers 36. See also NATIONAL CLEARINGHOUSE 2.

26 Hodge 87. Even the Catholic Church decided to tolerate coca chewing. The Church originally mistook coca for food and forbade its use before mass. After the ensuing uproar, the Church ruled that coca was in fact an "adjunct" of food and therefore permitted it to be chewed before mass. N. TAYLOR, NARCOTICS: NATURE'S DANGEROUS GIFTS 65 (3d ed. 1966). For a reference to cocaine and slavery in America, see note 71 infra.

27 Rogers 36,
Andes use coca. Because the stimulating properties of cultivated coca plants are considered to be greater than those of wild plants, the leaves of the former are preferred for chewing. To supply such a large market, Peru and Bolivia have been estimated to produce between twelve and fifteen thousand tons of coca leaves annually. The major portion of this harvest is consumed in the domestic market.

To harvest coca, the leaf is first picked from the stalk of the plant and left in the open to dry. Because moisture would destroy the active ingredients in the leaves, they may be placed under a shed for protection from the rain, much as is done in the United States with tobacco. Once harvested and dried, the leaves are quickly shipped to the markets. Any appreciable delay between harvesting and ultimate consumption also seems to affect the drug properties in the leaf. The Indian "coquero," or chewer of the coca leaf, chews the leaves mixed with a little lime and often some cornstarch. The lime flavors the mixture and helps release the cocaine in the leaves. With the saliva, it forms an alkaline solution which activates the drug substance.

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28 R. LINGEMAN, DRUGS FROM A TO Z: A DICTIONARY 43 (1969) [hereinafter cited as LINGEMAN]. Other estimates of coca use among Andean Indians include: "[a]lmost every adult male and many an adult female of the Quechua and Aymara people (the dominant Indian groups of the old Inca civilization)" (Hodge 86); 15 million people (N. TAYLOR, supra note 26, at 62); 10 million people (J. FORT, supra note 4, at 24); 8 million people (WOODLEY 49). Even though these estimates vary considerably, all indicate widespread use of the coca leaf.

So regular is the habit of coca leaf chewing that an Indian's cheek may become permanently distorted from the practice. Hodge 86. Another indication of the prevalence of coca chewing is the use of the "cocada" to measure distances. A "cocada" represents the distance that can be traveled on one chew. Id. at 88. This has been estimated to be between two and three kilometers. See NATIONAL CLEARINGHOUSE 2.

Indians are often allowed "coca breaks" at work. It is said that when an American engineer tried to outlaw coca chewing at one South American mine, a work stoppage resulted that closed the mine. 56 NATURAL HIS. 195 (1947) (letter to the editor).

29 BUREAU OF NARCOTIC ENFORCEMENT 9.

30 WOODLEY 49. In 1950, a United Nations commission reported to the Economic and Social Council of the United Nations that coca leaf chewing was harmful and recommended a gradual suppression of the practice over a period of 15 years. The United Nations representatives from Peru and Bolivia objected to the conclusion that coca leaf chewing is necessarily harmful as practiced by the laboring natives in high altitude areas of their countries and requested reconsideration. See D. MAURER & V. VOGEL, NARCOTICS AND NARCOTIC ADDICTION 133-34 (3d ed. 1967) [hereinafter cited as MAURER & VOGEL].

31 Rogers 34.

32 For a description of coca harvesting, see id. at 33 and Hodge 92.

33 Rogers 34. Other alkaline substances, such as the ashes of the quinua plant or a powder obtained from crushed shells, can be used in lieu of lime. Grannier-Doyeux 12. Betel nut chewers in India also add an alkaline to help extract the drug properties of the nut. Rogers 34-35.
cornstarch is sometimes added to bind the mixture together so that it can more easily be chewed.\textsuperscript{34}

Most commentators would agree that cocaism may be caused in large measure by environmental and social factors. First, the Indians seem to accomplish more when they use coca;\textsuperscript{35} they believe that coca actually helps them to live and to work at high altitudes by assisting in respiration and by decreasing fatigue.\textsuperscript{36} Comparative studies between Indians living in the lowlands and those living at high altitudes indicate that coca chewing is almost exclusively practiced among the latter group.\textsuperscript{37} Second, in an environment in which food is scarce, coca acts both as a stimulant and as a hunger depressant. As one commentator remarked: "The leaves provide [the Indians] with an antifatigue, anti-hunger and anticold substance that sustains them through a life of toil and deprivation."\textsuperscript{38}

If there is some unanimity of opinion as to the causes of cocaism, there is little agreement as to its effects. The dispute centers on three questions: Is coca addicting? Does it lead to illiteracy? Finally, does it contribute to malnutrition among the Indians?

1. Coca Addiction

There is little scientific evidence that the chewing of coca is physically addicting.\textsuperscript{39} Since cocaine itself is not physically addicting,\textsuperscript{40} it would seem a fortiori that coca likewise is not physically addicting. Observations made of Andean Indians who moved from high altitudes to the lowlands seem to bear this out. After changing altitudes, these Indians readily stopped using coca.\textsuperscript{41} Similarly, when the Peruvian army banned the use of coca, Indian recruits had no trouble giving up coca chewing when fed an adequate diet.\textsuperscript{42} These observations strongly

\textsuperscript{34} LINGEMAN 43. Sometimes the leaves are also wrapped around guano (bird droppings) for the necessary adhesion. \textit{Id.} It is estimated that the "coquero" who chews two ounces of the leaves ingests about 0.7 grain of cocaine a day. The heavy cocaine user may consume six to eight grains during the same period. \textit{Id.} One grain is equal to .0648 gram.

\textsuperscript{35} See MAURER & VOGEL 14; Hodge 87-88. \textit{But cf.} Grannier-Doyeux 12. See also the experiments of Doctors Mortimer and Rusby cited in Rogers 35. Some commentators argue that coca was partly responsible for the great architectural feats of the Incas. See N. TAYLOR, \textit{supra} note 26, at 63-64.

\textsuperscript{36} MAURER & VOGEL 4.

\textsuperscript{37} See, e.g., S. COHEN, \textit{supra} note 4, at 96.

\textsuperscript{38} \textit{Id.}

\textsuperscript{39} MAURER & VOGEL 134-35. Two Peruvian doctors, however, have claimed that injections of coca leaf extract led to addiction in dogs. \textit{LIFE}, May 19, 1952, at 137.

\textsuperscript{40} See notes 102-12 and accompanying text \textit{infra}.

\textsuperscript{41} S. COHEN, \textit{supra} note 4, at 96; Rogers 36.

\textsuperscript{42} \textit{LIFE}, May 19, 1952, at 137.
imply that coca chewing can be stopped with little or no unpleasant physical reaction. This does not mean that the use of coca may not lead to some degree of psychological, as distinguished from physical, dependence. It must be remembered, however, that the average “coquero” consumes only one tenth as much cocaine as the drug user in the United States. Thus even any psychological dependence on coca will be relatively mild—at least in comparison to the user of cocaine in this country. One commentator has stated: “Such small amounts of cocaine are actually consumed that the coca habit is not considered a dangerous drug abuse but rather analogous to coffee drinking in this country.”

2. Illiteracy

A statistical correlation between cocaism and illiteracy is claimed to be shown in a regional study of illiteracy. Teachers have observed that children who regularly use coca either have a very limited capacity for learning or are not interested in being educated at all. Although coca chewing may in fact affect the level of education among the Indians, other socio-economic factors may play a more significant part in determining the literacy rate. For example, the sanitation and nutrition of the Indians are poor; they live and work in wretched conditions and at altitudes where the oxygen content of the air is attenuated. One report states: “At best . . . coca chewing may be associated with sub-standard mental functioning . . . .” It cannot be categorically said to cause it.

3. Malnutrition

Coca chewing does depress the appetite. By chewing a sufficient quantity of leaves, a man is capable of doing without food for five days without experiencing any material inconvenience. Rather than being the cause of malnutrition, however, coca chewing seems to be one of its by-products. The scarcity of food in the high Andean plateau requires that Indians chew coca for the necessary energy to work. A related argument suggests that although coca is not a cause of malnutrition, it

43 See note 32 supra.
44 Lingeman 43. See also S. Hillier, Popular Drugs 158 (1910).
45 See Grannier-Doyeux 12.
46 Id.
47 National Clearinghouse 9.
48 Rogers 36.
49 National Clearinghouse 9 (emphasis added).
50 Lingeman 43.
may actually make a bad nutritional situation worse. Because he has little food, the Indian chews coca to depress his appetite. He thus eats even less than he normally would eat without the coca. It would seem, however, that the logical first step toward solving this problem would be to provide the Indians with adequate food. Then, as in the case of the Peruvian army recruits who stopped chewing coca when fed an adequate diet, coca chewing may gradually decrease. To suppress coca chewing without providing adequate food is to attack the symptom and not the cause of the malnutrition.

B. Cocaine

Although the vast majority of Indians chew coca leaves, there is also a flourishing cocaine trade in South America. The drug in its refined form is called “pichicato” or “la diosa blanca.” If there is widespread disagreement over the effects of coca chewing, there is little or no disagreement over the potential dangers of using cocaine.

1. History

Cocaine is an alkaloid which must be extracted from the coca leaf by a chemical process. Although the existence of the coca leaf was known for centuries, it was not until 1859 that the Austrian physician Alfred Niemann succeeded in isolating cocaine. Cocaine was soon widely recognized as a local anesthetic. Applied to the lining of the nose or mouth, it produces numbness by desensitizing the sensory nerve endings. A group of Vienna physicians began to experiment with cocaine in their practices; one of them, Carl Koller, an ophthalmologist,

52 Grannier-Doyeux 12. It is argued, however, that the leaf itself has sufficient nutritional value to substitute for food. N. Taylor, supra note 26, at 65-66.

53 Time, April 11, 1949, at 44. Summing up the widespread use of cocaine in Peru, one dealer remarked: “If you’re poor, you’re hungry. Pichicato fixes that. If you’re rich, you want an aphrodisiac. Pichicato fixes that, too. It’s a sure cure for everything.” Id.

54 “There does not seem to be anything yet discovered that has as baneful an effect on the user as does cocaine.” Eberle & Gordon, Report of Committee on the Acquirement of Drug Habits, 75 Am. J. Pharmacy 474, 485 (1903). Cocaine has many other names in street parlance, such as coke, snow, joy powder, cecil, Carrie, Bernice, dynamite, star dust, and flake. Bureau of Narcotics and Dangerous Drugs, Drugs of Abuse 8 (1970).

55 H. Anslinger & W. Tompkins, supra note 1, at 17. It has been claimed, however, that the real credit for the discovery of cocaine belongs to Gaedkin, who first prepared it in 1844. Maurer & Vogel 131. In 1859, the Austrian explorer Karl von Scherzer brought coca leaves to Europe for study, an event which led to the isolation of cocaine. 7 Encyclopedia Americana 160 (int’l ed. 1969). Cocaine was chemically synthesized in Berlin in 1902 by Richard Willstatter. Id.

56 Charles Fauvel reported in 1876 the anesthetizing effect of cocaine on mucous membrane. Bureau of Narcotic Enforcement 9.
successfully used cocaine as an anesthetic in a cataract operation in 1884.\footnote{Weston 98.}

At the same time cocaine was being developed as an anesthetic, there was hope that it might also provide a cure for morphine addiction. The problem of morphine addiction was particularly acute in the United States. During the Civil War, hospitals had so freely dispensed morphine that many soldiers became addicted to the drug.\footnote{See Bonnie \& Whitebread, The Forbidden Fruit and the Tree of Knowledge: An Inquiry into the Legal History of Marihuana Prohibition, 56 VA. L. REV. 971, 983 (1970).} In 1878, an American physician claimed successful treatment of several cases of morphine addiction by using cocaine.\footnote{BUREAU OF NARCOTIC ENFORCEMENT 9.} In 1884, Sigmund Freud detailed his experiments with cocaine, recommending it for treatment of opiate addiction and melancholia.\footnote{1 E. Jones, THE LIFE AND WORK OF SIGMUND FREUD 83 (1953).} Due to these initial successes, cocaine's experimental medical uses became so diffuse that by 1924 one study showed that a Maryland county required the equivalent of 29.03 grains of cocaine per person per year to meet legitimate medical needs.\footnote{SCIENCE, Oct. 10, 1924, at xiv.}

The widespread use of cocaine was not confined to medicine and psychology.\footnote{One survey in 1902 revealed that only three to eight percent of the total amount of cocaine sold in major American cities was used in the practice of medicine, dentistry, and veterinary medicine. NATIONAL CLEARINGHOUSE 4.} Because of its reputed ability to increase mental awareness, cocaine became quite popular in intellectual circles. Freud himself used cocaine and wrote glowingly of the exhilaration and lasting euphoria it produced.\footnote{See 1 E. Jones, supra note 60, at 82 (citing Freud's essay, On Coca). Freud even recommended that his fiancee use cocaine to give her cheeks a rosy color. Id. at 81.} Charles Baudelaire\footnote{Newsweek, Sept. 27, 1971, at 125.} and Robert Louis Stevenson\footnote{J. Rice, supra note 13, at 102.} were both known to have used the drug. In 1910, an article entitled "Influence of Cocaine on Contemporary Style in Literature" argued that cocainism was on the rise among intellectuals, and that "many great writers ... begin the use of cocaine that they may whip their inventiveness to action."\footnote{Influence of Cocaine on Contemporary Style in Literature, 48 CURRENT LITERATURE 533, 533 (1910).} Cocaine was not, however, the exclusive prerogative of the intellectual elite. The drug was an ingredient in many nonprescription medicines and tonics which were freely sold to the public in both Europe and America.\footnote{There were various reports of how easily cocaine could be purchased. One report spoke of a drug store in Philadelphia where
Coca Mariani was a mixture of wine and the "precious Peruvian leaf," as he called it. The drink had enormous success and was used by such notables as the composer Charles Gounod and Pope Leo XIII. Until 1906, coca leaves, including their alkaloid content, were ingredients in popular soft drinks sold in the United States. The situation in America was graphically described by one doctor:

In a mill town where catarrh was prevalent, a certain proprietary drug had an enormous sale. The board of health discovered that the drug contained cocaine. As there was no law that would apply in this particular instance, the greatest difficulty followed in suppressing its sale. This happened some years ago, but the result of that one drug, extended over a period of nearly two years, was the permanent ruin of at least a dozen persons, whose drug and spirit addiction followed them until death. Drinks served from the soda fountain, containing cocaine, are attracting increased attention by the sudden popularity and enormous sale in certain sections.

Over the past fifty years, the legitimate use of cocaine has dramatically decreased. First, it became evident that cocaine, although not physically addicting, was highly toxic and could cause some degree of psychological dependence. Second, more effective synthetic anesthet-

regular customers can enter and get cocaine without any formality but the payment of its price. Holding up one finger means the party wants a "five-cent powder"; two fingers, ten cents' worth; three, fifteen cents, and so on, the mere holding up of the fingers in the initiated way being enough!

Eberle & Gordon, supra note 54, at 486. The contemporary evidence seems to show that nine-tenths of the cocaine habitués began their habits by using prescriptions or patent medicines containing the drug. Id. at 485. Cocaine was often prescribed for catarrh, and the opiates for various bodily pains. One doctor spoke of a drug store which made a profit of $60 a day from the sale of cocaine. Yaple, April Pharmaceutical Meeting at the Philadelphia College of Pharmacy, 81 AM. J. PHARMACY 35 (1910).

Coca leaves which had not been decocainized were originally used in the making of Coca-Cola. Id. at 270. During this early period, Coca-Cola was advertised as a remedy for melancholy (id.), hysteria, and neuralgia. Spingarn, supra at 666.

For references to the extent of cocaine addiction in the United States at the turn of the century, see Eberle & Gordon, supra note 54, at 476-78; Hynson, Report of Committee on the Acquisition of Drug Habits, 74 AM. J. PHARMACY 547, 551 (1902). But see Grinnell, A Review of Drug Consumption and Alcohol as Found in Proprietary Medicines, 23 MEDICO-LEGAL J. 589-97 (1905). There is evidence that cocaine was given to American slaves to increase their productivity. See E. Brecher, supra note 70, at 275 n. * For estimates of the extent of total drug addiction in the United States in the late nineteenth and early twentieth centuries, see C. Terny & M. Pellens, The Opium Problem 1-52 (1928).
ics (such as Novocain) were developed, thereby diminishing, although not totally replacing, cocaine's importance as a pain-killer. Finally, stringent state and federal regulations were enacted to control the distribution of the drug at every step.

2. Distribution and Sale

The pattern of heroin manufacture and distribution has been widely studied.\(^2\) The opium poppies are cultivated in the Middle East or in Central or Southeast Asia\(^3\) and then transported to some European city for the manufacture of the heroin. From Europe, the heroin is smuggled either directly into the United States or indirectly through Canada, Mexico, or South America. Some heroin is manufactured in the Far East and is also smuggled into this country, although in smaller amounts than the heroin from Europe. The pattern of cocaine manufacture is slightly different. The coca plant is grown and harvested in South America, usually in Peru or Bolivia. Although the production of the cocaine may also take place in these countries, there is evidence that much of the cocaine is manufactured in Cuba and Chile.\(^4\) After manufacture, the cocaine is smuggled into the United States primarily through New York and Miami or over the Mexican border. A small amount of cocaine is legally manufactured in the United States for medical purposes, but very little of this finds its way into the illicit drug market.\(^5\)

Once the cocaine is in the United States, the distribution system is similar in certain respects to the distribution system for heroin. At the top of both systems is the importer, the person with enough money or financial backing to import large shipments of pure cocaine or heroin. He is the man responsible not only for bringing the cocaine or heroin into the country but also for making the connection between the


\(^3\) There is evidence that important opium poppy crops are being grown in Pakistan, Afghanistan, Burma, and Laos. These countries may replace Turkey as the foremost supplier of opium. See N.Y. Times, Aug. 4, 1972, at 6, cols. 3-4; id., Aug. 17, 1972, at 16, cols. 5-7.


\(^5\) In 1969, 1,184 kilograms of cocaine were produced in the United States, and of this 884 kilograms were exported. Woodley 49. For earlier figures on amount of cocaine produced in the United States, see Turner v. United States, 396 U.S. 398, 418 n.36 (1970). Only a small amount of this legally manufactured cocaine is stolen. Id. at 419 n.37. In 1968, there were at least three companies that legally manufactured cocaine hydrochloride in this country. They were Merck-Sharp & Dohme Co., Mallinckrodt Chemical Manufacturing Co., and Penna Co. See Erving v. United States, 323 F.2d 674, 678 (9th Cir. 1963).
manufacturers in South America or Europe who produce the drugs and the wholesalers in this country who will distribute them. For his own security, the importer is rarely a user of drugs. Immediately below him in the chain of distribution is the wholesaler, and below him, the various levels of dealers.

Wholesalers accept large drug shipments from the importer and act as warehousemen for the drugs until they are distributed to their customers, the dealers. In a sense, dealers can also be called wholesalers, because they usually do not sell directly to users but rather to street pushers and other retailers. Dealers may sometimes trade in as much as a kilogram of a drug, but they more often deal in lesser amounts such as halves, quarters, or eighths of a kilogram. The lowest member in the distribution system, the pusher, deals in even smaller amounts—in the case of cocaine, pieces (ounces), spoons, or capsules (usually the smallest amount of cocaine sold).

There are, however, dissimilarities between the two distribution systems—dissimilarities which result in large part from the special characteristics of each drug. For instance, cocaine requires faster marketing than heroin because cocaine will lose some of its potency if left to stand for too long. In addition, there is a much smaller market for cocaine than for heroin since cocaine is more expensive and gives a relatively

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76 If an importer were to use drugs, however, he would probably prefer cocaine to heroin. Cocaine need not be injected, thereby leaving no telltale signs of his drug use. See notes 91-94 and accompanying text infra.

77 For a study of the life of a cocaine wholesaler, see generally Woodley.

78 A kilogram of pure cocaine is commonly broken down for sale into the following smaller amounts.

1 kilogram = 1000 grams
1 pound = 454 grams
1 ounce ("a piece") = 28 grams (approximate)
1 spoon (1/16 ounce) = 1.7 grams (approximate)
1 cap = .10 gram (approximate)

A cap is a gelatin capsule used to package cocaine for sale. Because at the retail level cocaine may be divided into various sized caps, it is difficult to estimate any definite weight. Caution should be used in applying any of these figures, however. First, they represent pharmacological weights and not actual street weights. Inexact weighing may make the street ounce considerably less than 28 grams. Second, the figures assume that the cocaine is still pure. Once it is "cut" (mixed with one or more substances), the gram weight of the mixture will not be the gram weight of the cocaine in the mixture. When using gram weights, it is always important to know whether the weight is of the mixture or of the cocaine. Penal statutes may condition the gravity of an offense on the weight of the seized mixture and not the weight of the cocaine. See, e.g., N.Y. PENAL LAW §§ 220.15, .20 (McKinney Supp. 1972).

79 See Woodley 40-41.

80 In various conversations with California law enforcement officials and individuals working in California drug treatment programs, the author found a unanimity of opinion
brief “high.” To the average drug addict trying to support his habit, cocaine is a luxury item. For the cocaine dealer, however, the high price of his drug means less competition, more established retail outlets, and less need to “hustle” his inventory on the streets. One additional factor should also be apparent: the cocaine dealer’s clientele will generally be composed of wealthier and more experienced drug users, people not likely to increase the cocaine dealer’s risk of detection.

The wholesale or retail price of cocaine, as with any other product, fluctuates in response to market factors. Thus, the price will depend on the relative risks of “importing,” the current quantity of the drug available on the street, the area of the country where the drug is marketed, etc. Keeping these necessary caveats in mind, however, some estimates can be quoted. The wholesale price of a kilogram of pure cocaine in New York City has been estimated at between $14,000 and $20,000. Even before “cutting,” this price may increase as the cocaine is divided into smaller amounts and passed through various levels of the distribution system. The dealer who purchased the kilogram for $20,000 may resell it in quarters to lower level dealers for $6,000 a quarter. Cutting will also have an important effect on the retail price of the original kilogram of cocaine. The cocaine being sold on the street may contain as little as six percent or as much as ninety percent of the drug. If the cocaine is twenty percent pure, for example, the original kilogram of cocaine is now five kilograms of mixture. Thus, by the time the original kilogram has been cut to its desired purity, marked up at the various levels of distribution, and retailed in the smallest amounts generally sold, the value of the kilo may have increased to at least $125,000.

that cocaine was much more expensive than heroin. One law enforcement official stated that the street price for an ounce of heroin was $450 while the street price for an ounce of cocaine was $650. A heavy cocaine habit may cost $100 a day while heroin addicts may get by on from $50 to $75 a day. PHAMCHEM, No. 3, at 4 (1972).

The duration of a cocaine “high” may be less than one-half hour. S. COHEN, supra note 4, at 96-97; PHAMCHEM, No. 3, at 4 (1972).

See Woodley 10.

id. at 12.

The Consumers Union reports street cocaine to be about six percent pure. E. BRECHER, supra note 66, at 276 n.*. Although some street cocaine may be as pure as ninety percent, most individuals knowledgeable in the drug field estimate the purity of street cocaine to range between twenty and fifty percent.

For other estimates of the street value of a kilogram of cocaine, see id. at 303; J. RICE, supra note 13, at 103; WOODLEY 65-66, 101-02. Police estimates tend to be higher than other estimates.
3. Preparation and Use

In its pure form, cocaine is a fine white crystalline powder which looks like sugar and dissolves easily in water. The cocaine sold to the drug user has gone through at least three different processes. First, the alkaloid cocaine is chemically extracted from the coca leaf. Then the alkaloid in turn is mixed with hydrochloric acid to obtain the pure crystalline compound, cocaine hydrochloride or a salt of the alkaloid cocaine. Hydrochloride is added to the cocaine alkaloid to make the cocaine more soluble and to enable it to pass more easily through mucous membranes, particularly the nasal membrane. Finally, the refined cocaine hydrochloride is mixed with amounts of lactose or dextrose to dilute its strength. The amounts of lactose or dextrose added to cut the cocaine will obviously depend on the quality of the cocaine and the desired strength of the mixture. If the cocaine is to be cut, or "stepped-on," it is done just prior to sale, since cocaine loses much of its potency when too much time elapses between cutting and use.

The most common methods of taking cocaine are by sniffing or "snorting" the drug through the nostrils and by injecting it into the bloodstream. In the former method, the cocaine is placed in a little mound and "snorted," usually through a rolled piece of paper or part of a straw. The cocaine may also be placed on a small spoon and sniffed into one nostril while the other is held closed. Because cocaine irritates the nasal lining and constricts the blood vessels, prolonged sniffing can cause nasal hemorrhaging and ultimately perforation of the septum.

Like heroin, cocaine may be injected intravenously to produce reactions that are stronger and faster than those produced by "snorting." In certain instances cocaine is injected in combination with other drugs.

87 See Erving v. United States, 323 F.2d 674, 677-78 (9th Cir. 1963) (expert testimony).
88 Id.
89 Woodley 41. Although cocaine is usually cut with lactose or dextrose, it may also be mixed with caffeine or boric acid (Drug Intelligence, BNDD Bull., March-April 1971, at 7), or with procaine and benzocaine. Id., Sept.-Oct. 1971, at 8. See also Newsweek, Sept. 27, 1971, at 124.
90 See note 79 and accompanying text supra.
91 J. Fort, supra note 4, at 157; Lingeman 44. Cocaine loses its stimulative effects when taken orally because of poor absorption through the gastrointestinal tract. J. Fort, supra note 4, at 157.
92 The spoon and snuff box are the ordinary paraphernalia of cocaine sniffers.
93 H. Anslinger & W. Tompkins, supra note I, at 17; Woodley 57; Newsweek, Sept. 27, 1971, at 124. One sign of a heavy cocaine user is his habit of frequently rubbing his nose.
to achieve different effects. For instance, because of its marked stimulative effect, cocaine is often injected with heroin, a depressant. This mixture, called a "speedball," "blends the shock power of cocaine with the extended afterglow of heroin and is widely used by experienced addicts to 'go fast slow.'"\(^9^4\)

4. Effects

If drugs can be classified broadly as stimulants, depressants, or hallucinogens, cocaine would have to be classified as a stimulant. Cocaine acts upon the central nervous system to produce a euphoric excitement.\(^9^5\) Physiologically, cocaine causes an increase in pulse and respiratory rates, a rise in body temperature and blood pressure, constriction of the blood vessels, and dilation of the pupils.\(^9^6\) During this state of hyperexcitement, the cocaine user often becomes restless and talkative and experiences feelings of increased sexual desire and greater physical and mental prowess. He may find it difficult to measure time and distance. Appetite, thirst, and fatigue are generally forgotten. The effect of the drug is short lived, however, often lasting for only thirty minutes or less. As the effects of the drug begin to wear off, the user may feel depressed, leading him to take more cocaine to restore his feeling of euphoria.\(^9^7\)

Prolonged and heavy cocaine use can produce severe psychological and physiological effects. One frequent psychological result is hallucinations.\(^9^8\) In some cases, prolonged use causes paranoid delusions.\(^9^9\)

\(^{94}\) Winnick, Narcotics Addiction and Its Treatment, 22 LAW & CONTEMP. PROB. 9, 12 (1957).


\(^{96}\) For a discussion of the physical and psychological effects of cocaine, see J. Fort, supra note 4, at 156-57; LINGEMAN 44-45; WESTON 98-99.

\(^{97}\) This depression has been described as "the worst crash in the world." NATIONAL CLEARINGHOUSE 10. After the initial euphoria, some heavy users frequently experience what is called "freezing"—a condition in which the body becomes rigid. Pescor, supra note 95, at 473. Some have argued that these unpleasant sensations which follow the period of euphoria were the reason for cocaine's relative unpopularity in the past. MAURER & Vogel 132.

\(^{98}\) BUREAU OF NARCOTIC ENFORCEMENT 10. There seem to be certain common hallucinations experienced by cocaine users. The vision of "hordes of small uniformed policemen entering the room under the crack of the door" is one such hallucination. Id. Another is the sensation that a foreign object is under the skin or that insects are crawling over the person's body. "In an effort to relieve the intolerable itching caused by the feeling of insects crawling over the skin, cocaine users have been known to have scratched themselves until they drew blood, or to have attempted to dig the offenders from the skin with a knife blade." Id.

\(^{99}\) LINGEMAN 44-45.
Some commentators claim that in these states of hyperexcitement and paranoia, the cocaine user is extremely dangerous and potentially violent. In addition to these severe psychological effects, chronic cocaine use can trigger such physiological maladies as digestive disorders, nausea, insomnia, malnutrition, anemia, and even convulsions.

a. Addiction. Before one may consider whether cocaine is addicting, a few preliminary definitions are necessary. A "narcotic drug" is pharmacologically defined as one that depresses the central nervous system, producing stupor, insensibility, or sleep. Since a narcotic drug is defined as a depressant, cocaine, a stimulant, cannot be so classified pharmacologically.

"Tolerance" is the ability of the body to adapt to foreign substances, requiring ever-increasing doses of the substance to obtain the desired effect. The human body does not develop a significant tolerance to cocaine. On the contrary, there is some evidence that repeated use of cocaine may induce a sensitivity to its effects, so that less and less of the drug is required to produce similar effects.

"Physical dependence" means that the body adjusts to the substance, tolerates ever-increasing doses of it, and reacts with withdrawal symptoms when it is removed. The body does not become physically dependent on cocaine. It is true that the heavy cocaine user often experiences severe headaches, feels weak, and eats poorly after he stops taking cocaine. These reactions, however, are not relieved by additional injections of cocaine, and must be considered signs of the drug's toxicity, not symptoms of withdrawal.

Although cocaine does not produce physical dependence, it may produce psychological dependence. Psychological or psychic dependence occurs "when the physical sensation or psychological state brought about through the use of the drug is of such a nature that [the user] desires the repetition of the sensation or state, and feels more or less

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100 Id. at 45; Murray, Psychology and the Drug Addict, 12 Cath. Law. 98, 107-08 (1966); Pescor, supra note 95, at 473.
101 LINGEMAN 44-45.
102 Upton, Narcotics and Other Drugs Susceptible to Abuse, and Their Regulation, 10 N.H.B.J. 264, 265 (1968). There is, however, no "internationally recognized definition of the term 'narcotic drug.'" Waddell, International Narcotics Control, 64 AM. J. INT'L L. 310, 310 (1970).
103 Upton, supra note 102, at 264.
104 LINGEMAN 44. But see MAURER & VOGEL 132.
105 NATIONAL CLEARINGHOUSE 6.
106 Upton, supra note 102, at 264.
107 Note, Narcotics Regulation, 62 Yale L.J. 751, 756 n.37 (1953). See also NATIONAL CLEARINGHOUSE 6. For a somewhat different view, see E. BRECHER, supra note 70, at 276.
psychological disturbance or distress during periods of abstinence from the drug.\textsuperscript{108} Psychological dependence may occur with or without body tolerance or physical dependence. Of course, the degree of psychological dependence will vary according to the personality of the abuser; those with an addiction-prone personality\textsuperscript{109} will obviously become dependent much more quickly and totally than others.

A person may become psychologically dependent upon almost any drug, but the characteristics of cocaine may pose special problems. The euphoria produced by the drug is so intense that it may lead to early psychic dependence.\textsuperscript{110} At the same time, with more prolonged use of cocaine, there is more danger that the user will begin to suffer severe physical reactions.

To summarize, cocaine is not a narcotic drug. Its use does not produce tolerance or physical dependence but may produce a degree of psychological dependence. With these concepts as background, it is now possible to consider whether cocaine is addicting.

"Drug addiction" has been defined as a state of periodic or chronic intoxication produced by the repeated consumption of a drug (natural or synthetic) characterized by (1) an overpowering desire or need (compulsion) to continue taking the drug and to obtain it by any means, (2) a tendency to increase the amount of each dose, (3) a psychic and generally a physical dependence on the effects of the drug, and (4) an effect detrimental to the individual and to society\textsuperscript{111}. Drug addiction must be distinguished from drug habituation. Habituation is a condition resulting from the repeated administration of a drug, characterized by (1) a desire (but not a compulsion) to continue taking the drug for the sense of improved well being that it engenders, (2) little or no tendency to increase the average dose, (3) some degree of psychic dependence on the effect of the drug, but absence of physical dependence


\textsuperscript{110} For example, to take an extreme case, patients at a narcotic hospital on one occasion reclaimed cocaine swabs used in treating a diseased nose, soaked the cotton in water, and injected the solution. MAURER & VOGEL 132.

\textsuperscript{111} The definition is that of the World Health Organization, U.N. Expert Committee on Addiction-Producing Drugs, PRESIDENT'S ADVISORY COMM'N ON NARCOTIC AND DRUG ABUSE, FINAL REPORT 101 (1963). The word "addiction" is derived from the Latin "addicere," meaning to give over or to deliver a person or thing to another, such as when a judge assigned a debtor to his creditor. For a recent definition of "addict," see Comprehensive Drug Abuse Prevention and Control Act of 1970, § 102, 21 U.S.C. § 802 (1970). For other definitions of addiction, see WESTON 46.
and hence of the abstinence (withdrawal) syndrome and (4) a detrimental effect, if any, primarily to the individual.\textsuperscript{112}

By these definitions, cocaine is not addicting. The user neither develops a tolerance to the drug nor becomes physically dependent upon it. Cocaine more closely resembles a habituating drug. The cocaine user will generally wish to continue taking the drug; he may become psychologically dependent upon it, but his body will not build up any tolerance to it.

b. \textit{Toxicity}. Although as much as ten grains of cocaine can be ingested in small doses at frequent intervals, it is usually thought that a single dose of 1.2 grains will be fatal.\textsuperscript{113} There are wide variations in individual susceptibilities, however, and there have been rare cases in which as little as .01 grain has been fatal.\textsuperscript{114} Since the body does not develop a tolerance to cocaine, the lethal dose remains constant with use. Thus, it is important that the user know not only his particular susceptibility to the drug but also the exact strength of the cocaine to be consumed.\textsuperscript{115}

Death due to a cocaine overdose can be caused by a depression of the higher nervous centers, particularly the medulla, which may follow the initial stimulation that the drug produces. Since the medulla controls respiration, breathing may stop when this part of the brain becomes sufficiently depressed.\textsuperscript{116} The symptoms of cocaine poisoning appear in rapid succession.

There is a period of anxiety on the part of the user. Then occur intense pallor, shortness of breath, and complaints of being warm with beads of sweat standing out on the forehead. The pupils become so dilated that there appears to be a hole in the center of each eye. Nausea and vomiting may take place. Finally breathing stops.\textsuperscript{117}

\textsuperscript{112} See President's Advisory Comm'n on Narcotic and Drug Abuse, supra note 111, at 101 (WHO definition). It should be noted, however, that in 1964 the WHO Expert Committee recommended substituting the term "drug-dependence" for both the terms "drug addiction" and "drug habituation." See Eddy, Halbach, Isbell & Seevers, Drug Dependence, Its Significance and Characteristics, 32 WHO Bull. 721 (1965).

\textsuperscript{113} LINGEMAN 44.


\textsuperscript{115} One doctor has summed up the situation by saying that "[t]here is a narrow margin of safety between the dose that will kill and the one that will get you off." Newsweek, Sept. 27, 1971, at 124.


\textsuperscript{117} WESTON 99. All drugs, whether stimulants or depressants, will produce respiratory depression, which if severe enough may cause death. Lynch, The Pharmacology of Addicting Drugs, 12 Cath. Law. 121, 123 (1966).
If the person can be kept alive with artificial respiration for a short period of time, there is a good chance that he may survive, since the liver quickly detoxifies cocaine and can process a lethal dose every hour.\(^{118}\)

Although drug poisoning is a real danger, few deaths are reported as attributed to overdoses of cocaine.\(^{119}\) This may be due, at least in part, to the preferred method of taking cocaine—snorting through the nostrils. Because snorting is easily repeated, less cocaine need be taken at one time, thus reducing the danger of an overdose.

5. Reasons for Increased Popularity

The renewed interest in cocaine is by no means inexplicable. Until recently, there was a limited demand for the drug because of its expense. What little was available was often kept by drug dealers for their own private use or taken by certain heroin addicts as a diversion. During the past decade, however, cocaine has become increasingly popular not only with heroin addicts but also with two larger groups of people—the growing number of ex-addicts in methadone maintenance programs and those artists, students, and members of the professional class who experiment with drugs.

a. Ex-Addicts. Cocaine's popularity among ex-addicts in methadone maintenance programs has been convincingly documented.\(^{120}\) Methadone can be used to block the effects of opiate drugs, but it has no effect on cocaine.\(^{121}\) In one Philadelphia study, 18.5 percent of those in a methadone program showed signs of cocaine in urine samples.\(^{122}\) The ex-addict raises the funds to purchase the cocaine by selling a portion of the methadone given him.\(^{123}\) By taking cocaine, he can still obtain

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\(^{118}\) DeLong, supra note 116, at 108. For the treatment of acute poisoning, it has been suggested that the patient “should be placed in shock position and given intravenous injections of nikethamide.” Maurer & Vogel 234.

\(^{119}\) A search of the literature yielded no evidence of any significant number of deaths attributable to cocaine poisoning. In fact, certain law enforcement officials with whom the author spoke said that such deaths were rare. Cocaine is not often used in suicide. Maurer & Vogel 234.


\(^{121}\) Id. at 1.

\(^{122}\) Id. Cocaine can be detected in the urine by using a Thin Film Chromatography urine test. “The urine test becomes positive about thirty minutes after a single dose and remains positive up to thirty-six hours for a single dose . . . .” Maurer & Vogel 172. For a discussion of the various chemical tests which can be used to identify whether a substance is in fact cocaine, see D. Bernheim, Defense of Narcotics Cases § 4.03 (1972).

\(^{123}\) W. Taylor, C. Chambers & R. Dembo, supra note 120, at 6.
the pleasurable euphoria of drug taking while running little risk of discovery. Since there is no need to inject cocaine, the ex-addict will show no visible signs of his continued drug use.

b. Professionals. Like marihuana before it, cocaine is becoming an "acceptable" drug for members of the professional class. These individuals, who obviously can afford cocaine, tend to prefer it over "hard drugs" for several reasons. First, cocaine is not physically addicting. The effects of heroin are well-publicized; many are afraid even to try it. Although cocaine can be psychologically habituating, this is considered a rather remote possibility when compared to the more immediate and tangible danger of heroin addiction. Second, cocaine need not be injected with a hypodermic needle. For some, the thought of using a hypodermic needle is repugnant, particularly because of its grim association with heroin. Others, like those in the methadone maintenance programs, would prefer no telltale marks on their arms to evidence their drug use. Third, cocaine has "recreational" value; it produces a temporary feeling of euphoria, reduces fatigue, and causes increased mental acuity. In social situations, the cocaine user is often more confident and open than he would be without the drug. Finally, cocaine has acquired a somewhat hedonistic allure since it reputedly stimulates sexual desire and increases sexual potency.

6. The Need for More Research

Although drug abuse has long been a problem, there are still serious gaps in our knowledge about drugs generally. Even a part of what is "known" about a particular drug may not be the result of detailed scientific analysis. Commenting on the alleged connection between marihuana and violent or aggressive acts, the National Commission on Marihuana and Drug Abuse remarked:

Until recently, ... these beliefs were generally based on the anecdotal case examples of law enforcement authorities, a few clinical observations and several quasi-experimental studies of selected populations comprised of military offenders, convicted or

124 See Woodley 48.
125 See notes 95-97 and accompanying text supra. Cocaine acts first on the higher levels of the brain. It was allegedly employed by the fictional master detective, Sherlock Holmes, to solve crimes. See R. de Ropp, Drugs and the Mind 105 (1957).
126 See Woodley 54.
Despite the seriousness of the drug problem, few efforts have been made to subject popular notions about drugs to rigorous scientific analysis.

Research into the effects of cocaine abuse is no more complete. At least five areas urgently require additional research. (1) Why do individuals react so differently to the effects of the drug? Although a lethal dose is often thought to be 1.2 grains, some persons have died after taking as little as .01 grain of cocaine. (2) What are the long range organic effects of cocaine use? For instance, since the liver must detoxify cocaine, excessive cocaine use could damage liver functioning. (3) What are the long range psychological effects of cocaine use? Research might focus on two separate aspects of the problem. First, since cocaine produces such strong stimulative reactions, it may create psychological dependence faster than other drugs. Second, there seems to be a definite correlation between cocaine use on the one hand and increased anxiety levels and paranoia on the other. Heavy cocaine use unquestionably produces increased agitation and anxiety. In such states, the behavior of individuals can become irrational and violent. In this context, however, it would be important to know (a) how regularly such severe paranoia occurs among heavy users, and (b) whether even occasional cocaine use appreciably increases anxiety levels, thereby making the user more dangerous to those around him.

129 NATIONAL COMM’N ON MARIHUANA AND DRUG ABUSE, MARIHUANA: A SIGNAL OF MISUNDERSTANDING 71 (1972).

130 Little federal money has been spent on cocaine research. For a breakdown of National Institute of Mental Health funds dispersed for research on various drugs in 1970, see Wald & Hutt, supra note 124, at 13. It should be noted, however, that since cocaine is a stimulant, research conducted with amphetamines would have considerable cross-relevance for the study of cocaine.

131 See notes 113-14 and accompanying text supra.

132 Excessive alcohol and barbiturate use have been shown, for example, to damage the brain and liver. Wald & Hutt, supra note 128, at 16.


134 The typology of users of different drugs is a fertile field for research. For an indication that there can be significant differences in behavioral patterns between heavy and occasional drug takers, see NATIONAL COMM’N ON MARIHUANA AND DRUG ABUSE, supra note 129, at 55 (summary of effects of marihuana related to degree of use).

Certain standard distinctions are often drawn between the heroin addict and the cocaine user. For example, one comparison is as follows. Heroin is physically addicting; the addict will commit crimes in a panic to obtain the necessary money to feed his habit. Once he has taken the heroin, however, the addict becomes much less dangerous. Heroin, a depressant, is "more likely to induce the user to curl up blissfully in a corner rather
the effects of cocaine when mixed with alcohol or other drugs such as heroin, barbiturates, and amphetamines? Today, multiple drug abuse is perhaps the rule and not the exception among drug users. Investigations into heroin overdose deaths have revealed that it may not be the increased dose of heroin but rather heroin in combination with alcohol or barbiturates that kills. There is even some speculation that the quinine used to "cut" heroin may be lethal. Research may prove that cocaine is more deleterious to health when mixed with certain adulterants than when taken by itself. How easily can cocaine be synthetically manufactured? The cocaine illegally used in the United States is mainly smuggled into the country. If an inexpensive process were developed to synthesize the drug, it would undoubtedly have an impact on the illicit cocaine distribution system in this country.

If the public is to be made aware of the dangers of drug abuse, the data must first be gathered and then convincingly presented. This goal can only be achieved after adequate and precise research and analysis. Unproven assertions that cocaine leads to insanity or turns one into a "dope fiend" do little to persuade an intelligent student of the problem. There have been few areas of the law in which there has been a more active mythology than in the field of drug abuse, and there may be few drugs more "mythologized" than cocaine.

II

HISTORY OF FEDERAL AND STATE COCAINE REGULATION

Prior to 1930, cocaine, rather than heroin or opium, was viewed as the primary drug menace in the United States. The development of criminal sanctions and regulatory measures concerning the drug reflects this attitude.

than to go out to murder or rape." Hughes, United States Narcotics Laws, 1964 CRIM. L. REV. 520, 527. This is not true of the cocaine user. He is most dangerous precisely when he is feeling the effects of the drug; he becomes aggressive and may become hostile without provocation. Once the effects of the drug have worn off, however, the cocaine user is less dangerous because he is not addicted to his drug.

135 Wald & Hutt, supra note 128, at 5.
137 Id. at 114.
138 See R. King, THE DRUG HANG-UP 25 (1972). The remark of one cocaine user may summarize popular belief about the drug: "If you aren't nuts before you use it, you sure are after." H. ANSLINGER & W. TOMPKINS, supra note 1, at 287.
139 See NATIONAL COMM'N ON MARIHUANA AND DRUG ABUSE, supra note 129, at 7-8.
A. Federal Legislation Dealing with Cocaine

1. Federal Legislation Through 1914

Cocaine and opium were standard ingredients in various patent medicines and sodas sold throughout the country at the turn of the century. The growing trade in these medicines and beverages in part prompted Congress to enact the Pure Food and Drug Act of 1906. Although indirect, this was the first congressional attempt to regulate cocaine distribution in the United States. By its terms, the Act prohibited the introduction into any State or Territory or the District of Columbia from any other State or Territory or the District of Columbia, or from any foreign country, or shipment to any foreign country of any article of food or drugs which is adulterated or misbranded, within the meaning of this Act . . . .

For purposes of the Act, an article of food or drugs was deemed misbranded if it contained, but did not disclose on the label, any alcohol, morphine, cocaine, heroin, or any derivatives or preparations of these substances. Similarly, in the case of food, an article was deemed adulterated if it contained any added poisonous or deleterious ingredients which might render the food injurious to health. A confectionary (soda) was deemed adulterated if it contained, inter alia, any “narcotic drug.” By prohibiting the interstate shipment of food and sodas containing cocaine and opium and by requiring that any amounts of these drugs be marked on the labels of all medicines, the Pure Food Act provided a significant regulatory framework for the distribution of these substances.

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140 See notes 67-71 and accompanying text supra.
141 Ch. 3915, § 3, 34 Stat. 768 (repealed 1938). There was, of course, earlier federal legislation dealing with drugs. A law had been passed in 1886 to include the study of narcotics in the curriculum of certain schools. Act of May 20, 1886, ch. 362, 24 Stat. 69 (codified at 20 U.S.C. §§ 111-13 (1970)). The importation of opium into the United States by “any subject of the Emperor of China” was forbidden by Act of Feb. 23, 1887, ch. 210, 24 Stat. 409 (repealed 1970). Opium was frequently mentioned in various tariff statutes, the earliest of which was Act of July 14, 1832, ch. 227, § 3, 4 Stat. 590 (1832) (repealed 1841).
142 Ch. 3915, § 2, 34 Stat. 768. Interestingly, the first section of the Act made it unlawful “to manufacture within any Territory or the District of Columbia any article of food or drug which [was] adulterated or misbranded.” Id. § 1, 34 Stat. 768. Although Congress possessed federal authority to prohibit such manufacture in those jurisdictions, it undoubtedly believed that it lacked constitutional power directly to prohibit local manufacture in the several states. Manufacturing was early considered a subject for local, not national, regulation. See, e.g., Parker v. Brown, 317 U.S. 341 (1943); Kidd v. Pearson, 128 U.S. 1 (1888). Since Congress could not prohibit the manufacture of adulterated or misbranded food or drugs, it did the next best thing by regulating the interstate shipment of such items.
143 Ch. 3915, § 8, 34 Stat. 770.
144 Id. § 7, 34 Stat. 770.
145 Id.; see text accompanying notes 169-71 infra.
and Drug Act of 1906 did curtail somewhat the marketing of dangerous patented medicines and sodas.\textsuperscript{146} Although the provisions of the Act applied to articles of food and drugs in interstate commerce only, the great majority of these medicines and sodas containing cocaine and opium were so shipped.

The 1906 Act also placed the first minimal restrictions on the importation of cocaine into the United States. The Act prohibited the importation of any food or drug product that was adulterated or misbranded or was "otherwise dangerous to the health of the people of the United States."\textsuperscript{147} In order to import cocaine, the importer had to swear that the drug was intended for use in a manner not dangerous to health.\textsuperscript{148}

Sanctions contained in this early legislation were not particularly severe. Violators could be fined up to two hundred dollars. Only a repeated offender was subject to imprisonment.\textsuperscript{149}

In 1914, Congress passed two important pieces of drug control legislation—the Harrison Act\textsuperscript{150} and the Narcotic Drugs Import and Export Act.\textsuperscript{151} Together they represented the most comprehensive attempt yet made by the federal government to deal with cocaine and opium abuse. This legislation was the direct result of pledges made by the United States at the Hague International Opium Conference in 1912.\textsuperscript{152}

\textsuperscript{146} See Bonnie & Whitebread, \textit{supra} note 58, at 985.
\textsuperscript{147} Ch. 3915, § 11, 34 Stat. 772.
\textsuperscript{149} Ch. 3915, § 2, 34 Stat. 768.
\textsuperscript{151} Ch. 9, 38 Stat. 275 (1914) (repealed 1970).
\textsuperscript{152} The involvement of the United States in international attempts to control the traffic in drugs, particularly opium, began in earnest after the Spanish-American War. The United States at that time found itself in control of the Philippine Islands, which had a serious opium problem. In 1905, Congress enacted measures to deal with the local problem in the Philippines. Act of March 3, 1905, ch. 1408, § 6, 33 Stat. 944 (repealed 1909). Concern also took other forms. Largely at American instigation, representatives of 13 countries met in Shanghai in 1909 to discuss measures to control the international opium traffic. This conference led to the Hague Conference in 1912. See R. King, \textit{supra} note 138, at 10-14.

On January 23, 1912, the United States and certain other nations agreed to suppress the manufacture and trading of prepared opium and to control cocaine and morphine. International Opium Convention, The Hague, opened for signature Jan. 23, 1912, 38 Stat. 1929 (1915), T.S. No. 612. Specifically with respect to cocaine, the Hague Convention stated that the contracting powers (1) would enact pharmacy laws or regulations to confine the manufacture, sale, and use of cocaine to medical and legitimate purposes (\textit{id.} art. 9, 38 Stat. 1932); (2) would take measures to prohibit in international trade the transfer of cocaine to any unauthorized persons (\textit{id.} art. 11, 38 Stat. 1932); and (3) would use their "best
The less significant of these two statutes is the Narcotic Drugs Import and Export Act.\textsuperscript{153} With respect to cocaine, the Act prohibited the export of the drug to any country unless that country regulated its own drug imports.\textsuperscript{154} Violations of the provisions of the Act were punishable either by a fine not exceeding five thousand dollars nor less than fifty dollars, or by imprisonment for up to two years, or both.\textsuperscript{155}

The Harrison Act\textsuperscript{156} served for more than fifty years as the cornerstone of the entire federal scheme of drug control legislation. The Act required every person who produced, imported, manufactured, compounded, dealt in, dispensed, sold, distributed, or gave away opium or coca leaves or their derivatives (cocaine) to register with the Internal Revenue Service and to pay a special tax.\textsuperscript{157} The Act did not specify any grounds for refusing registration.

Once a person had registered, however, the Harrison Act required that he file returns setting forth, among other things, the quantity of all opium, coca leaves, or their derivatives received by him,\textsuperscript{158} and that he transfer these drugs pursuant only to a special order form supplied by the transferee.\textsuperscript{159} Since these order forms could be obtained endeavors” (a) to control all persons manufacturing, importing, selling, distributing, and exporting cocaine (\textit{id.} art. 10, 38 Stat. 1932), (b) to restrict the importation of the drug to authorized persons (\textit{id.} art. 12, 38 Stat. 1933), and (c) to adopt measures to ensure that cocaine would not be exported to other signatory countries unless consigned to persons furnished with a license provided for by regulations of the importing country. \textit{Id.} art. 13, 38 Stat. 1933.

Although the parties agreed to the convention in January 1912, it was not to take effect until three months after ratification by all signatory powers. \textit{Id.} arts. 23-24, 38 Stat. 1935. Once the convention was in effect, the individual countries had six months to submit to their respective legislatures appropriate measures to carry out the provisions of the convention. \textit{Id.} art. 24, 38 Stat. 1935. Because of the difficulty in acquiring the necessary signatures, the convention did not take effect until February 11, 1915. H. ANSLINGER & W. TOMPKINS, \textit{supra} note 1, at 32. For an excellent discussion of the early international opium conferences, see W. WILLOUGHBY, \textit{OPium AS AN INTERNATIONAL PROBLEM: THE GENEVA CONFERENCES} (1925).

\textsuperscript{153} Ch. 9, 38 Stat. 275 (1914).

\textsuperscript{154} \textit{Id.} § 6, 38 Stat. 276.

\textsuperscript{155} \textit{Id.} § 2, 38 Stat. 276.

\textsuperscript{156} Ch. 1, 38 Stat. 785 (1914).

\textsuperscript{157} \textit{Id.} § 1, 38 Stat. 785. Constitutional challenges were soon leveled against the Act on the ground that it was not a proper revenue measure but rather an attempt to usurp the police powers of the several states. In United States v. Doremus, 249 U.S. 86 (1919), the Supreme Court rejected this contention, holding that the Act could not be declared unconstitutional merely because its effect might be to accomplish a purpose in addition to the raising of revenue. \textit{Id.} at 94.

\textsuperscript{158} Ch. 1, § 8, 38 Stat. 787 (1914). Certain reporting requirements were demanded of importers of cocaine and coca leaves prior to 1914. \textit{See} 24 TREAS. DEC. No. 33,456 (1913).

\textsuperscript{159} Ch. 1, § 2, 38 Stat. 786 (1914).
only from the Internal Revenue Service by registered persons, the Act envisioned that all transfers of cocaine and opium would be between registered persons. Offenses were punishable by fines of up to two thousand dollars, a possible prison term of five years, or both. The Act declared that the mere possession of cocaine or opium by a nonregistered person, although not a crime in itself, was presumptive evidence of violation of the registration and special tax provisions. The Harrison Act exempted from coverage certain medicinal preparations containing minimal amounts of opium or its derivatives. Significantly, no preparation containing cocaine, no matter how minimal the amount, was exempted.

2. Federal Legislation from 1915 to 1970

Even with the passage of the Harrison Act and the Narcotic Drugs Import and Export Act in 1914, there was still relatively little federal legislation regulating cocaine. Although the internal distribution and export of cocaine had been regulated, significant gaps remained in federal legislation which frustrated any effective control over the drug. For example, the United States had not yet directly controlled the amount of cocaine imported into or synthetically manufactured in this country.

In 1919, Congress amended the Harrison Act to place even tighter controls on the distribution of cocaine and opium. First, the special tax, originally one dollar per year for all registered persons, was increased to twenty-four dollars per year for importers, manufacturers, producers, and compounders, to twelve dollars per year for wholesale dealers, to six dollars per year for retail dealers, and to three dollars per year for physicians and dentists. In addition, a new commodity stamp tax of one cent per ounce was levied on all opium, coca leaves,

160 Id., 38 Stat. 787.
161 A limited number of exceptions were available, e.g., sales by pharmacists to non-registered persons pursuant to a doctor's prescription. Id. § 2(b), 38 Stat. 786.
162 Id. § 9, 38 Stat. 789.
163 Id. § 8, 38 Stat. 789. A discussion of provisions permitting presumptions of guilt to arise from the possession of drugs is beyond the scope of this article. For cases dealing with such presumptions as applied to the illegal possession of cocaine, see Turner v. United States, 396 U.S. 393 (1970); Gibson v. United States, 424 F.2d 490 (9th Cir. 1970); Erwing v. United States, 323 F.2d 674 (9th Cir. 1963). See also Kay v. United States, 421 F.2d 1007 (9th Cir. 1970) (dictum).
164 Ch. 1, § 6, 38 Stat. 789 (1914). The provisions of the Act did not apply to de-cocainized coca leaves or to any preparations of coca leaves which did not contain cocaine.
166 Id. § 1006, 40 Stat. 1130.
or their derivatives produced in or imported into the United States.\textsuperscript{167} It thus became unlawful to purchase, sell, or dispense any cocaine except in or from the original stamped package.

In 1922, Congress finally moved to correct the most glaring oversight in federal legislation by prohibiting the importation of cocaine and coca leaves. The amendments to the Narcotic Drugs Import and Export Act banned the importation of cocaine absolutely but permitted the importation of certain amounts of coca leaves needed for medical and other legitimate uses.\textsuperscript{168} Any cocaine thereafter needed for medical purposes had to be produced from these legally imported coca leaves or chemically synthesized.

This law was significant in two additional respects. First, for the first time in a federal statute, cocaine was clearly defined as a narcotic drug.\textsuperscript{169} Prior federal statutes had only referred to opium and cocaine by name.\textsuperscript{170} Cocaine thus became a narcotic drug in the eyes of the law, whereas pharmacologically it remained a non-narcotic drug.\textsuperscript{171} Second, penalties for violating the Act were more stringent than those in prior federal drug statutes. Whereas earlier penalty provisions had been drafted in the alternative—either a fine or imprisonment or both—\textsuperscript{172} the 1922 Act imposed a fine of up to five thousand dollars \textit{and} imprisonment for up to ten years.\textsuperscript{173}

In 1930, Congress directed the Surgeon General of the Public Health Service to make studies of the quantities of coca leaves and crude opium needed to supply the normal and emergency medical and scientific requirements of the country.\textsuperscript{174} He was to report to the Commissioner of Narcotics who at the latter’s discretion could use these findings in determining the amounts of coca leaves and crude opium to be imported.\textsuperscript{175} Congress also permitted other quantities of coca leaves to be imported provided that after their entry into

\textsuperscript{167} Id.


\textsuperscript{169} Act of May 26, 1922, ch. 202, \$ 1(a), 42 Stat. 596.

\textsuperscript{170} See, e.g., Narcotic Drugs Import and Export Act, ch. 9, \$ 6, 38 Stat. 275 (1914) (repealed 1970).

\textsuperscript{171} See note 102 and accompanying text \textit{supra}.

\textsuperscript{172} See text accompanying notes 154 & 158 \textit{supra}.

\textsuperscript{173} Act of May 26, 1922, ch. 202, \$ 2(c), 42 Stat. 596.

\textsuperscript{174} Act of June 14, 1930, ch. 488, \$ 4(b), 46 Stat. 587 (repealed 1944).

\textsuperscript{175} Id. On the question of how much cocaine would meet the medical needs of the country, Congress in effect relegated the Surgeon General to an advisory capacity, placing the final decision in the hands of a law enforcement officer.
the United States all cocaine contained in the leaves was destroyed under the supervision of the appropriate government officials.\textsuperscript{176}

During the next thirty years, there was no significant change in the basic pattern of cocaine regulation in the United States. What is significant about these years, however, was Congress's preoccupation with increased penalties for every type of drug abuse, including, of course, cocaine abuse. Prior to 1951, there were basically two sets of penalties for drug offenses. Violations of the Harrison Act were punishable by fines of up to two thousand dollars, imprisonment for up to five years, or both.\textsuperscript{177} Violations of the importation laws were punishable by a fine of up to five thousand dollars \textit{and} imprisonment of up to ten years.\textsuperscript{178} In 1951, Congress made two fundamental changes in this pattern by making penalties for all drug offenses uniform and by requiring mandatory minimum prison sentences.

With the 1951 amendments to the Narcotic Drugs Import and Export Act and the Harrison Act, Congress standardized penalties for all drug offenses.\textsuperscript{179} Thus the penalty for failing to register as a cocaine distributor became identical to the penalty for illegally importing large quantities of cocaine into the country.

Prior law had always left the sentencing of a drug offender to the discretion of the judge; a maximum outer limit was set but no minimum term of imprisonment was required. The 1951 amendments reversed this approach and required a judge to sentence a drug offender to a mandatory period in prison. For a first offense, the penalty was to be a fine of not more than two thousand dollars and a prison term of not less than two nor more than five years. For a second offense the fine remained constant, but the prison term was increased to not less than five nor more than ten years. For a third or subsequent offense, the prison term was increased to not less than ten nor more than twenty years.\textsuperscript{180} First offenders were eligible for a suspended sentence or probation but second or subsequent offenders were denied eligibility for either.\textsuperscript{181}

Congress was still not satisfied with the penalty structure, and in

\textsuperscript{176} Id. § 6, 46 Stat. 587. For years, soft drink manufacturers had been importing decocainized coca leaves as flavoring for various sodas, but the cocaine always had to be extracted before the leaves reached the United States. The new provision, however, permitted the cocaine to be extracted \textit{after} the coca leaves had been brought into the country.

\textsuperscript{177} See note 155 and accompanying text supra.

\textsuperscript{178} See note 173 and accompanying text supra.


\textsuperscript{180} Id. § 2, 65 Stat. 768.

\textsuperscript{181} Id.
1956 amended the law once again by increasing mandatory minimum prison terms but at the same time returning to a penalty structure which took into account the nature of the offense committed. The penalties for the more serious drug offenses, the illegal importation of cocaine or other narcotics and the sale or transfer of these drugs without the required order form, were raised to a mandatory prison term of not less than five nor more than twenty years and a possible fine of up to twenty thousand dollars. A minimum prison term of ten years was mandated for second or subsequent offenses or for a first offense if the case involved a drug sale by an adult to a minor. To ensure that a drug trafficker would serve his full term in prison, Congress denied eligibility for a suspended sentence, probation, or parole even on the first conviction.

Congress also provided increased penalties for violations of the Harrison Act’s provisions regarding registration, payment of taxes, and possession of drugs, but these penalties were kept less severe than those for trafficking offenses. Thus, a cocaine distributor who failed to register and to pay the special tax was subject to a fine of up to twenty thousand dollars and a prison term of not less than two nor more than ten years. However, a first offender would be eligible for probation, parole, or a suspended sentence.

The last pre-1970 statute that affected cocaine regulation in the United States was the Narcotics Manufacturing Act of 1960. Although the importation of cocaine had been absolutely prohibited in 1922, cocaine was still used as a local anesthetic and could be legally manufactured in the United States either synthetically or from coca leaves imported for medical purposes. Domestic production was regulated only indirectly by restrictions upon the importation of coca leaves and by requirements that those producing cocaine had to register, pay various taxes, and distribute the drug in conformity with strict controls. In 1960, however, Congress tightened manufacturing controls by requiring that manufacturers of cocaine and other narcotic drugs be licensed by the Secretary of the Treasury. In addition, the Secre-

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183 Id. § 103(b), 70 Stat. 568.
184 Id. § 103(d), 70 Stat. 569.
185 Id. § 103(a), 70 Stat. 568.
186 Id. § 103(d), 70 Stat. 569.
188 See note 168 and accompanying text supra.
190 Pub. L. No. 86-429, §§ 7-8, 74 Stat. 55. In determining whether to issue a license, the Secretary of the Treasury, for reasons of control, could limit the manufacture
tary was empowered to set individual manufacturing quotas. The federal government thus had statutory power (1) to determine the total quantity of cocaine which was needed in each year to meet domestic, export, and reserve requirements, and (2) to set individual manufacturing quotas to achieve these quantities.

B. State Legislation Dealing with Cocaine

1. State Legislation to 1914

State involvement in the field of drug control generally, and cocaine control specifically, antedates federal involvement. The first statute to regulate drug distribution and use was enacted by Nevada in 1877. By its terms, the law forbade the sale of opium and its derivatives without a doctor's prescription, the smoking of opium, and the maintenance and frequenting of any building or place where opium was illegally used. No further attempts were made to regulate cocaine distribution until 1887, when Oregon prohibited the sale of both opium and cocaine without a doctor's prescription. By 1914, forty-five additional states had adopted some form of legislation to regulate the distribution of cocaine. Illustrative of these early state cocaine laws was the New York statute. It provided that any person who sold, offered to sell, furnished, disposed of, or gave away cocaine except as authorized by the act was guilty of a felony. The act elaborated procedures whereby manufacturers, wholesalers, pharmacists, druggists, and medical and dental practitioners could legally distribute cocaine, but at the same time imposed various record keeping requirements. Unauthorized possession of cocaine was also made a crime, although classified only as a misdemeanor.

2. State Legislation from 1915 to 1970

Although the Harrison Act unquestionably represented significant federal intervention into local drug regulation, the Act was technically of cocaine to the smallest number of establishments which could produce an adequate and uninterrupted supply. Id. § 8(a)(1), 74 Stat. 62. He could also consider an applicant's personal qualifications, such as his education and moral character. Id. § 8(a)(4), 74 Stat. 62.

191 Id. §§ 7(a)(2), 11, 74 Stat. 61, 64.


193 Act of Feb. 21, 1887, § 1, [1887] Ore. Laws 87; see U.S. Public Health Service, supra note 192, at 5.

194 Bonnie & Whitebread, supra note 58, at 986. At that time only 29 states had passed comparably legislation regulating the use of opium or its derivatives. Id.

195 Chi. 470, § 1746(g), [1913] N.Y. Laws 988.

196 Id. §§ 1746(a)-(c), (j), (k), [1913] N.Y. Laws 984-86, 989.

197 Id. § 1746(h), [1913] N.Y. Laws 988.
a revenue statute and by its terms did not directly prohibit the possession or use of cocaine. By 1931, however, every state had restricted the sale of cocaine and thirty-six had prohibited its unauthorized possession. 198

State legislation regulating cocaine was widespread, but there was a "considerable lack of uniformity regarding the offenses prohibited and the penalties imposed by the several states." 199 To remedy this situation, the Commissioners on Uniform State Laws in 1932 proposed the Uniform Narcotic Drug Act. 200 The purpose of the Act was twofold: to unify disparate state drug laws and to harmonize these laws with the Harrison Act. Since the Act was finally adopted in all but two states, 201 its provisions provide the pattern of state cocaine regulation during the period from 1932 to 1970.

The basic provision of the Act made it "unlawful for any person to manufacture, possess, have under his control, sell, prescribe, administer, dispense, or compound any narcotic drug" except as authorized by the Act. 202 Using federal law as a model, the Commissioners included cocaine in the definition of narcotic drug. 203 Under the Act, to manufacture or distribute cocaine a person first had to obtain a license from the appropriate state official. 204 Once licensed, manufacturers and wholesalers could sell and distribute cocaine only to certain categories of individuals able to present an official written order form. 205 Apothecaries could retail cocaine only pursuant to a written prescription of a physician. 206 Each individual in the chain of cocaine distribution was required to keep detailed records of every transaction involving the drug. 207

The Commissioners on Uniform State Laws did not, however, specify penalties for violating the provisions of the Act. Each state was permitted to enact whatever penalties it considered warranted. In many instances, the penalties the state enacted were more severe than the

198 See U.S. Public Health Service, supra note 192, at 8, 13. As for opiates, 46 states had restricted their sale and 35 had prohibited their unlawful possession. Id.
199 Bonnie & Whitebread, supra note 58, at 1028-29.
201 The states which did not adopt the Uniform Narcotic Drug Act were California and Pennsylvania. New Hampshire and Montana repealed the Act in 1969.
202 Uniform Narcotic Drug Act § 2.
203 Id. § 1(13).
204 Id. § 3.
205 Id. § 5.
206 Id. § 6. The term "apothecary" was for all practical purposes synonymous with licensed pharmacist. See id. § 1(7).
207 Id. § 9(1).
respective federal penalties. In New York, for example, an unauthorized person convicted of selling sixteen ounces of any mixture containing cocaine could be sentenced to life imprisonment.208

This analysis of early federal and state cocaine laws reflects the widespread fear of cocaine at the time of their enactment. Three observations support the argument that cocaine was, indeed, the most feared drug in this country prior to 1930. First, in terms of numbers, more states regulated cocaine than the opiates. In 1914, forty-six states had enacted some form of cocaine controls, whereas only twenty-nine states had comparable controls for the opiates.209 Even as late as 1930, there were more states which regulated cocaine than the opiates.210 Second, harsher penalties were often provided for cocaine violations. For instance, in New York State in 1914, the illegal sale of cocaine was a violation of the penal law punishable as a felony.211 The illegal sale of opium or heroin was a violation of the public health law punishable as a misdemeanor.212 Third, many provisions of federal law seemed to treat cocaine as an “especially dangerous drug.” For example, the Harrison Act exempted from its coverage preparations containing minimal amounts of opium. No such exemption, however, was available for a preparation containing cocaine, no matter how small the amount.213 This special fear of cocaine may also explain its puzzling classification as a narcotic drug in the 1922 amendments to the Narcotic Drugs Import and Export Act,214 a classification contradicting pharmacological evidence.

III

PRESENT FEDERAL AND STATE COCAINE REGULATION

A. Federal Legislation

In 1970, Congress repealed existing federal drug laws and in their place enacted the Comprehensive Drug Abuse Prevention and Control Act of 1970.215 Title II is known as the Controlled Substances Act.216 Although the new law abolished the commodity and occupational taxes

208 N.Y. PENAL LAW §§ 70.00, 220.44 (McKinney Supp. 1972).
209 See note 194 and accompanying text supra.
210 See note 198 and accompanying text supra.
211 See note 195 and accompanying text supra.
212 Ch. 363, § 1, [1914] N.Y. Laws 1120.
213 See note 164 and accompanying text supra.
214 See note 169 and accompanying text supra.
216 Id. §§ 801-904.
imposed by the Harrison Act, it generally reenacted the existing drug regulation scheme described above. The Act requires registration of every person in the legitimate chain of drug distribution, detailed record keeping, and production quotas for the manufacture of certain drugs, and establishes strict import and export limitations. Harsh penalties for those engaged in the illicit drug traffic are continued. With respect to cocaine, the Act changes some of the nomenclature but little of the substance of prior federal law.

Those drugs with respect to which controls are imposed are now specified as "controlled substances." Controlled substances are divided into five schedules, depending upon their potential for abuse and their actual medical value. Drugs in Schedule I have a high potential for abuse and no medical value. Among the drugs listed in Schedule I are heroin, LSD, and marihuana. Cocaine, however, appears in the second schedule of controlled substances—drugs that have a currently accepted medical use but a high potential for abuse that can lead to severe psychological or physical dependence. Cocaine's designation as a drug with a high potential for abuse is not open to much debate. Cocaine may not be physically addicting or strongly hallucinogenic, but it can be deleterious to health and may lead to psychological habituation. Less justifiable, however, is Congress's continued classification of cocaine as a narcotic drug. The bifurcation between the pharmacological and legal definitions of narcotics is thus continued.

The 1970 Act empowers the Attorney General to register manufacturers and distributors of controlled substances. Those who wish to manufacture cocaine must meet stringent requirements. The Act provides that the Attorney General shall register an applicant who wishes to manufacture substances in Schedules I or II only if he determines that such a registration is consistent with the public interest and with the international obligations of the United States. As for manufacturers of controlled substances in schedules III, IV, or V (less dangerous

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217 Id. § 822(a).
218 Id. § 827.
219 Id. § 826.
220 Id. §§ 952-53.
221 Id. §§ 841, 843(c), 845, 848(a), 849(b). The 1970 Act did lessen somewhat the penalties for distributing small amounts of marihuana without remuneration. Id. § 841(b)(4).
222 See id. §§ 812(b), (c).
223 Id. § 812(c), sched. I(b), (c).
224 Id. sched. II(a)(4).
225 Id. § 802(10).
226 Id. § 821.
227 Id. § 823(a).
drugs), the Attorney General is directed to register an applicant unless such a registration is inconsistent with the public interest.\textsuperscript{228} The statutory language thus seems to indicate that the burden of persuasion on the question of registration rests with the one who wishes to manufacture the cocaine.\textsuperscript{229}

The importation regulations which apply to cocaine are slightly changed by the 1970 Act. Under prior law, cocaine that was needed for medical and scientific uses could not be directly imported; it had to be domestically manufactured from imported coca leaves.\textsuperscript{230} The 1970 Act, however, authorizes the Attorney General to permit the importation of cocaine itself if he determines it to be necessary to provide for legitimate needs during an emergency or at a time when domestic competition is inadequate.\textsuperscript{231}

Several offenses are newly created by the statute. Under the Harrison Act, possession of cocaine was not a federal crime per se.\textsuperscript{232} The unauthorized possession of cocaine or any other controlled substance has now become a punishable offense under the Act.\textsuperscript{233} The Act also makes it a crime for anyone to manufacture or distribute a controlled substance in either of the first two schedules knowing or intending that such substance will be imported into the United States.\textsuperscript{234} Thus the manufacturer or distributor of cocaine in Peru or Chile who transfers the cocaine knowing that it will be smuggled into this country commits a federal crime for which he can be prosecuted in the United States if jurisdiction over him can be obtained.

Maximum penalties for the illegal manufacture or sale of cocaine continue to be stringent, but the 1970 Act does not require mandatory minimum penalties. Thus, judges will have much more discretion in sentencing drug offenders than in the immediate past. Since cocaine is both a Schedule II drug and a "narcotic," anyone who illegally manufactures, distributes, dispenses, or possesses cocaine with intent to do so is subject to a prison term of not more than fifteen years, a possible fine

\textsuperscript{228} Id. § 829(d).
\textsuperscript{229} Distributors of cocaine, however, will be registered if they meet the less severe test.
\textsuperscript{230} See note 168 and accompanying text supra.
\textsuperscript{232} Mere possession was also not an offense under the Narcotic Drugs Import and Export Act. See Erwing v. United States, 323 F.2d 674, 679 (9th Cir. 1963).
\textsuperscript{233} 21 U.S.C. § 844(a) (1970). Simple possession of a controlled substance must be distinguished from possession with intent to distribute or dispense, which the Act treats as a trafficking offense subject to more stringent penalties. Id. §§ 841(a), (b).
\textsuperscript{234} Id. § 959.
of up to twenty-five thousand dollars, or both. If the person has prior drug convictions or sells to someone under twenty-one years of age, the maximum penalties are doubled. The penalty attached to the possession of cocaine for personal use is a maximum one year prison term, a fine of up to five thousand dollars, or both.

B. State Legislation

The passage by Congress of the Comprehensive Drug Abuse Prevention and Control Act of 1970 destroyed the federal-state relationship between the Harrison Act and the Uniform Narcotic Drug Act. To replace the latter Act, the Commissioners on Uniform State Laws drafted the Uniform Controlled Substances Act to provide "an interlocking trellis of Federal and State law to enable government at all levels to control more effectively the drug abuse problem."

Like the federal act, the new Uniform Act divides controlled substances into five categories depending on their potential for abuse and medical utility. Cocaine is again listed in the second category—a drug with a high potential for abuse but with a certain degree of medi-
Unfortunately the Uniform Act also classifies cocaine as a narcotic drug, perpetuating the original mistake made in 1922 in the Narcotic Drugs Import and Export Act. The Uniform Act further requires every person who manufactures, distributes or dispenses cocaine to obtain annually a registration issued by the appropriate state official. Unlike federal law, however, the state official is directed to register both a manufacturer and distributor of cocaine unless he determines the registration to be inconsistent with the public interest. As for record keeping and order form requirements, compliance with federal law is deemed compliance with the Uniform Act. As in the case of the Uniform Narcotic Drug Act, the Commissioners on Uniform State Laws leave it to each state to impose appropriate penalties for violating the Act. The State of Washington, for example, punishes the illegal manufacture and sale of cocaine with imprisonment for up to ten years, a fine of up to twenty-five thousand dollars, or both.

CONCLUSION

Two things are clear from this analysis. First, American drug control legislation has historically treated cocaine not only as a dangerous drug but as a "peculiarly" dangerous drug. Examples are the unusual legislative classification of cocaine as a narcotic drug despite its pharmacological status as a stimulant and the early felony penalties for cocaine abuse. A strong argument can thus be made that cocaine was viewed as the primary drug menace during the early years of American drug control regulation.

Second, although cocaine abuse is not a new phenomenon, there are still many unanswered questions about its operation on the human system. For example, it is known that cocaine use can cause severe physiological and psychological reactions; heavy cocaine use increases anxi-

241 Id. § 206(b)(4).
242 Id. § 101(o).
243 Id. § 302(a).
244 Id. § 303(a); cf. notes 227-28 and accompanying text supra.
245 UNIFORM CONTROLLED SUBSTANCES ACT §§ 306-07.
246 WASH. REV. CODE ANN. § 69.50.401(4)(l)(i) (1971). The Uniform Controlled Substances Act has recently been adopted in many states. See, e.g., ILL. ANN. STAT. ch. 56½, §§ 1100-602 (Smith-Hurd Supp. 1972); MASS. ANN. LAWS ch. 94c, §§ 1-48 (Supp. 1972); NEV. REV. STAT. §§ 453.011-361 (1971); N.M. STAT. ANN. §§ 54-11-1 to 54-11-39 (Interim Supp. 1972). Although New York, Ohio, and Virginia have not passed the Uniform Act as such, they have changed their laws to take the new federal law into account. N.Y. PENAL LAW § 220.02 (McKinney Supp. 1972); OHIO REV. CODE ANN. §§ 3719.04-08 (Page Supp. 1972); VA. CODE ANN. §§ 54-524.84:1 to 54-524.84:13 (Supp. 1972).
ety levels and makes the user more aggressive than normal. But little is really known about possible long term organic harm caused by cocaine, the effects of cocaine when used in combination with other drugs, or even the effects of occasional cocaine use. Since this country seems to be in the midst of a cocaine "epidemic," there is a certain urgency about the need for these data. Much time and money have been spent trying to analyze the reasons why a person takes drugs or becomes an addict. In our zeal to find answers to these important questions, we must not overlook the need for continued efforts to understand the nature and effects of the various drugs in general and of cocaine in particular.