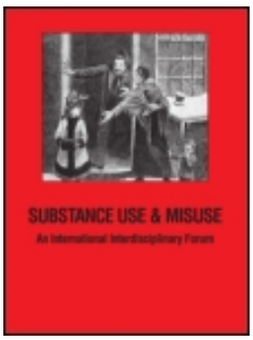

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ORIGINAL ARTICLE

Change is Possible: The History of the International Drug Control Regime and Implications for Future Policymaking

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The article, based upon an extensive literature review, reconstructs and analyzes the parallel evolution of the international drug control regime and the world opiate market, assessing the impact of the former on the latter until the rise of present-day mass markets. It shows that, since its inception, the regime has focused almost entirely on matters of supply. However, that focus has not always meant "prohibition"; until 1961, the key principle of the regime was "regulation." Given the different forms drug control policy has taken in the past, the authors conclude it may be amenable to new forms in the future.

Keywords drug control regime, prohibition, regulation, UN conventions, illegal drugs, opiates, heroin

INTRODUCTION

The current international drug control regime is often presented by key international policymaking agencies as immutable. The International Narcotics Control Board (INCB), the main watchdog of the regime, has repeatedly and vocally opposed any change to the three UN Conventions (adopted in 1961, 1971, and 1988; see infra) that constitute the regime's pillars. The UN Commission on Narcotics Drugs (CND), the main UN forum for discussion and decisionmaking on drug policy (see infra), is also uninterested in considering change as indicated by the modest results of the 2009 session, which was intended to consider the implications of the 1997 United Nations General Assembly Special Session.

Despite the seeming rigidity of the current regime, a review of the parallel evolution of the international drug control regime and the world opiate market demonstrates that they have changed significantly over the past two centuries and that, therefore, change is possible in the future.[1] Quoting Victoria Berridge (1999, p. 230), historical research on opiates "demonstrates that the concepts, the reactions, the structures of controls which are now taken for granted are not fixed and immutable."

Until the late nineteenth century, the limited range of opiates that were technologically available was legal almost everywhere and subject to little or no regulation. A variety of factors led to a change in the perception of opiates and the rise of an international control regime at the beginning of the twentieth century. These included US concerns about the large and growing Chinese opium market and the spread of natural and semiprocessed opium derivatives, particularly morphine and heroin, in the West, and also western developments in medical practice and organization, technological progress, changes in commercial interests, revised political calculations, and pressures from social reform movements and cultural anxieties. Both the changed perception and the new regime, in turn, contributed to the formation of national regulations and prohibitions.

The extent to which the onset of controls, regulations, and prohibitions can be credited with the world market's ebb between about 1900 and 1960 is debatable, but it is almost without question that the market did decline markedly before finding new life in present-day mass markets and widespread distribution networks. This article explores the link between the rise of the international control regime and that decline. More generally, it considers the impact of the regime on the opiate market. The second section describes production and consumption in the period before the initiation of the international control regime, signaled by the Shanghai Conference on Opium in 1909.

[1]The focus on opiates—that is, on opium and its derivatives—is partly opportunistic: this review draws from a rich base of historical documents and analyses. However, we can also defend our choice on substantive grounds, as opiates are the only drugs that have been targeted by the regime throughout its history.

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The third section reconstructs the early stages of the international control regime, exploring the reasons for its development and its impact on opiate production, trade, and consumption prior to World War II. The fourth section does the same for national control policies in a number of key or better researched countries. The fifth section covers the period 1945–1970, including the consolidation and expansion of the international regime, which began with the passage of the Single Convention on Narcotic Drugs in 1961. The final section discusses the relevance of history to current policy debates.

PRODUCTION AND CONSUMPTION: 1800–1909

Opiate production and consumption at the start of this period were largely regional phenomena, concentrated in a handful of Asian countries. In the last two decades of the nineteenth century, the market for opiates began to expand beyond Asia to include the United States and Western Europe, which became the main seat for the production and consumption of the new opiate derivatives, namely morphine and heroin.

Production

Throughout the nineteenth and early twentieth century India, then a British colony, was the principal exporter of opium in Asia. Famously, the British fought two "Opium Wars" with China (1839–1842 and 1856–1858) to open up that nation to opium exports from India and balance its own imports of tea and textiles (Beeching, 1975). India also was the dominant source of opium for Indonesia and other East Asian countries during the nineteenth century. Over the period 1858–1947, taxes on opium production and export accounted for about one-seventh of the revenue of the British authorities ruling India (Owen, 1934; Trocki, 1999, p. 110). Responding to a growing internal market, China also became a major producer in the second half of the nineteenth century, producing two-thirds of its domestic consumption in 1879 (Newman, 1995). Iran and Turkey were secondary producers (Paoli, Greenfield, & Reuter, 2009, p. 17).

Two of opium's most important derivative products, morphine and heroin, first came to market in the nineteenth century. Morphine was discovered in 1803 by a German pharmacist, Friedrich Wilhelm Adam Sertürner, but its production and use grew substantially throughout the Western world only after the development and spread of the hypodermic needle in second half of the century. The hypodermic needle presented a relatively effective mode of delivering doses of morphine. Diacetylmorphine was first synthesized in 1874 by an English chemist, C. R. Alder Wright. Under the trademark of "heroin," it was produced in large quantities and marketed as a nonaddictive morphine substitute and cough suppressant with great success by Bayer & Co. starting in 1898 (de Ridder, 2000, p. 66; see also pp. 33–66).[2] As the synthesis of diacetylmorphine was not patented, many other companies in Germany and elsewhere sold drugs containing it. Thirteen diacetylmorphine-based products were available in Germany and at least 18 others internationally (de Ridder, 2000, pp. 75–77).

Consumption

China dominated nineteenth-century consumption both in terms of the number of users and the amount consumed. By 1906, according to Newman (1995), total consumption had reached the extraordinary figure of over 48,000 tons—more than twice the figure for early twenty-first century global consumption of opiates, including both legal (for pharmaceuticals) and illegal; the population of China around 1900 was barely 5% as large as the current world population.[3]

Opium filled many roles in China. It served as a medical product, a recreational item, an addiction soother, a badge of social distinction, and a symbol of elite culture (Dikötter, Laamann, & Zhou, 2004, p. 46; see also Zheng, 2005). A remarkably high percentage of China's population consumed opium, but only infrequently. For example, Newman (1995, pp. 786–788) comes to the conclusion that, as of 1906, about 60% of the adult men in China and 40% of the adult women smoked approximately 15 grams of opium a year for festive purposes. Assuming that dependence began somewhere in the lowest category of daily use, the same author (Newman, 1995, pp. 786–788) hypothesizes that about 16 million Chinese (6% of the adult population) were drug dependent. Newman (1995) and a whole generation of new historians, however, show that most users, including many regular users, were still able to lead normal lives and suffered no negative consequences from their opium use. According to Dikötter et al., "in most cases habitual opium use did not have significant harmful effects on either health or longevity: moderate smoking could even be beneficial, since it was a remarkable panacea in the fight against a wide range of ailments before the advent of modern medications" (2004, p. 3; see also Zheng, 2005).

China was not the only large Asian nation with a substantial opium-using population in the nineteenth and early twentieth centuries. Indochina, India (then including modern-day Pakistan and Bangladesh and from 1824 on increasingly larger portions of Burma), Indonesia, Iran, Malaya, the Philippines, and Thailand also had substantial numbers of users. In most of these countries, too, opium was largely ingested, drunk, or, more rarely, smoked in moderate amounts for recreational or medical reasons without any loss of control (Richards, 2002 and Paoli et al., 2009, p. 19). The Royal Commission on Opium set up by the British government

[2] Ironically, at Bayer, the invention of heroin is ascribed to Felix Hofmann, the same chemist who also synthesized acetylsalicylic acid, the active ingredient in Aspirin®. And, in an even more ironic twist of history, the invention of aspirin was initially neglected, while heroin was immediately marketed as a "heroic means" (de Ridder, 2000, pp. 73–74).

[3] Albeit, the Chinese opium was only 30–70% as potent, in terms of morphine content, as twenty-first century opium (Dikötter et al., 2004, pp. 8–9).

in 1892, for example, concluded that opium use in India did not cause "any extensive moral or physical degradation." It found that "the habit is generally practised in moderation, and ... when so practised injurious effects are not apparent" (quoted in Dikötter et al., 2004, p. 103).

Each nation (or its colonial master in most cases) wrestled with different methods of regulating opium consumption domestically, usually to gather government revenues but later in some cases trying to cut consumption. For example, in the eighteenth century, the Dutch established an opium monopoly on Java, auctioning "opium farms" or franchises to the highest bidder, usually a consortium of influential Chinese who then primarily sold the drugs among their people (Rush, 1991). During the early nineteenth century most colonial governments throughout Southeast Asia adopted similar arrangements. In 1881, however, the French administration in Saigon established the Opium Régie, a direct state marketing monopoly that showed far greater efficiency and profitability. In the following decades, the new model spread to the Netherlands Indies, British Burma, and Malaya and Siam. Ostensibly presented as a drug control measure, these monopolies remained central to colonial finances until World War II. In 1905–1906, for example, opium sales provided 16% of tax revenues for French Indochina, 16% for the Netherlands Indies, 20% for Siam, and 53% for British Malaya (McCoy, 1991, pp. 90–93 and 100–101 according to data provided to the International Opium Commission in Shanghai).

Though Asia accounted for most of the global opiate consumption in the late nineteenth century, the West also engaged in use, but increasingly involving more refined versions of opium. The United States, for example, developed a serious opiate problem in the late nineteenth century (Musto, 1987). Opium had been available earlier, but the spread of morphine in the second half of the nineteenth century greatly increased opiate consumption. Other opiates were available in low-potency liquid preparations, such as laudanum, or patent medicines, which could be bought freely until 1906. Dependence spread initially through medical prescription, at a time when opiate addiction was little understood; it affected all classes. According to Courtwright (1982, p. 9), the rate of opiate addiction reached a maximum of 4.6 per thousand in the 1890s—almost 50% higher than the contemporary rate of chronic heroin users (slightly more than 3 per thousand; ONDCP, 2001).[4]

Courtwright also shows convincingly that by the turn of the century, that is 15 years before the passage of the Harrison Act, opiate addiction in the United States began to decline. "The major reason for the rise, as well as the fall, in the rate of opiate addiction," he writes, "was the prevailing medical practice of the day" (1982, p. 2). Just as physicians inadvertently promoted opiate spread in the 1870s and 1880s, their more sparing prescriptions, due to the new understanding of the addictiveness of opiates, led to a decline of opium and morphine abuse from the late 1880s onwards.

Opium was used for self-medication in many European countries throughout the nineteenth century (e.g., de Liederkerke, 2001; Scheerer, 1981). In Britain, whose experience with opiates has been well documented, the trends were similar to those in the United States: opiate consumption expanded up to about the turn of the twentieth century, thanks also to the spread of morphine, and then began to decline even before the passage of any restrictive legislation (Berridge, 1984).

DEVELOPMENT AND IMPACT OF THE INTERNATIONAL DRUG CONTROL REGIME: 1909–1945

A global control regime emerged in the early part of the twentieth century. While the early initiatives focused on regulation, the tone and provisions of later treaties became increasingly prohibitionist mainly under pressure from the United States.

International Controls

The International Opium Commission, which convened in Shanghai in 1909, at the insistence of the United States, represents the corner stone of the contemporary drug control regime. Involving 13 nations,[5] the conference had no authority to approve a binding document; rather, it adopted nine resolutions. A number dealt exclusively with the Chinese opium problem, but one, which was addressed to all governments, called for the "gradual suppression" of opium smoking; other forms of opium consumption were not mentioned. It stated that the use of opium for other-than-medical purposes was held "by almost every participating country" to be "a matter of prohibition or for careful regulation." This represented a compromise between the views of the US and British governments, the latter still anxious to protect the Indian-Chinese opium trade (Bruun, Pan, & Rexed, 1975, p. 11).

Three years later, 12 countries met at The Hague to draft a treaty. The result of their efforts, known as the first International Opium Convention or the Hague Convention of 1912, entailed weak provisions; [6] it left the interpretation of control to the individual governments and called on domestic, rather than international, regulation for production and distribution of prepared opium (Bruun et al., 1975, p. 12). The convention did not restrict the

[4] It must be stressed, however, that the current figure is only for heroin and does not include other opioids, such as Oxycontin. If the household survey data are to be trusted, taking the consumption of other opioids into account would double the current number of chronic users (PR: CITE).

[5] The Commission included all the colonial powers in the region—Britain, France, Germany, Japan, The Netherlands, Portugal, and Russia—and China, Siam (now Thailand), Persia (now Iran), Italy, Austria-Hungary, and the United States (McAllister, 2000, p. 28).

[6] The Convention was signed in The Hague by representatives from China, France, Germany, Italy, Japan, The Netherlands, Persia (now Iran), Portugal, Russia, Siam (now Thailand), the UK, and the British overseas territories (including British India).

production of raw opium but only the right to sell opium to nations that had prohibited its importation (McAllister, 2000, pp. 33–34). Even weaker were the requirements set for other opiates and cocaine.[7]

Nonetheless, the Hague decision that the use of morphine and cocaine and also opium be confined "to medical and legitimate purposes" was crucial. Thanks to British and German maneuvering, the first international opium convention also transformed the Far Eastern emphasis of the Shanghai conference into a full-scale international system (Berridge, 1984, p. 19). At the insistence of Germany, which aimed to postpone controls, it was agreed that the convention needed universal signature before going into effect. Because of this peculiar ratification procedure, the convention might never have entered into force had the British government not made its ratification a condition of the Treaty of Versailles that ended World War I in 1919 (McAllister, 2000, pp. 36–37).

The establishment of the League of Nations in 1919 provided the international community with a centralized body for the administration of drug control. Although the United States did not join the League of Nations, its influence in international drug control matters remained strong. Pushing for concrete limitations on opium production, the United States pressed for the adoption of further controls. A series of new conventions were adopted in the following years. The second Geneva Convention, known as the International Opium Convention of 1925, established an import-certification system to limit the amount of drugs each country could legally import (McAllister, 2000, pp. 57–78; Senate of Canada Special Committee on Illegal Drugs, 2002, pp. 446–447). The 1931 Limitation Convention restricted the manufacture of opiates and other drugs to the amounts necessary to meet medical and scientific needs: countries would provide estimates of need and a new agency would monitor them. However, the effectiveness of the convention was seriously undermined by several loopholes for manufacturing states and by Article 26, which absolved states of any responsibility under the convention for their colonies (McAllister, 2000, pp. 108–109; Senate of Canada Special Committee on Illegal Drugs, 2002, pp. 447–448). The topic of trafficking was focused on for the first time by the 1936 Convention for the Suppression of the Illicit Traffic in Dangerous Drugs: this called on parties to use their national criminal law systems to "severely" punish, "particularly by imprisonment or other penalties of deprivation of liberty," any act directly related to drug trafficking (Taylor, 1969, pp. 288–298).

The first phase of development of the international drug control regime was almost exclusively supply-oriented and aimed at reducing the supply of drug through careful monitoring and trade regulations. In this phase, the focus shifted from a paternalistic effort to reduce opium smoking in China to controls on the manufacture of opium derivatives and cocaine, the drugs most consumed in the developed countries. The controls on drug manufacturing were included in the 1925 and 1931 treaties despite the opposition of countries with strong pharmaceutical industries, such as the Netherlands, Germany, and Switzerland. Only with the 1936 convention did illicit drug trafficking become the central concern of an international treaty (Carstairs, 2005). Almost paradoxically, none of the early treaties entailed any binding provision to limit the production of opium itself. Article 1 of the Hague Convention of 1912 merely required parties to "enact effective laws or regulations for the control of the production and distribution of raw opium," and this minimalist approach, primarily at the insistence of colonial powers, held up in later treaties. According to Block (1989, p. 317), the focus on manufacturing was also a consequence of the fact that the League had little control over the world's opium harvest. Four of the major opium-producing countries, namely, China,[8] Iran, Russia, and Turkey, had not signed any of the early drug control conventions.

Impact of International Controls

Among the most tangible products of the bodies set up by the early international drug control treaties are the data on drug production, medical demand and transactions that they collected from governments. This information sheds light on the impact of the early international drug control system on opiate markets and documents the rise of illicit channels of production and distribution. Regarding the latter, a comparison of the reported figures for legitimate opiate production and demand suggests that a total of about 16 tons of morphine and heroin were diverted annually from licit production during the period 1925–1929 (de Ridder, 2000, pp. 136–138), amounting to about 0.008 grams per person globally; in contrast, for 2004, Paoli et al. (2009, pp. 25; 96–98) provide an estimate of illicit consumption of about 275–350 tons in aggregate and about 0.04–0.05 grams per person.

During the 1920s and early 1930s several legitimate pharmaceutical companies were involved in illicit deals; some companies, including the leading firms of the day, were pinpointed by the League, which scrutinized the import and export certificates introduced by the second Geneva Convention. In 1925, for example, the Swiss firm, Sandoz, exported over 1,300 kilograms of morphine to a Japanese firm that had no record of the transaction (Block, 1989, p. 320). The French firm, Roessler, smuggled over six tons of heroin into the Far East between 1926 and 1929 (de Ridder, 2000, p. 140). Drugs were not just sent to Asia. The League of Nations also documented many cases of diversion and smuggling within Europe with various Swiss, French, Dutch, and German companies involved (e.g., Block, 1989, pp. 318–320; Meyer & Parssinen, 1998, pp. 25–36).

The League of Nations was quite effective in using the power of adverse publicity, a common tactic in other

[7]The text of all treaties can downloaded from http://untreaty.un.org/English/CTC/CTC_03.asp

[8]China ratified the Hague Convention of 1912 as early as 1915, but did not underwrite later drug control treaties until the Single Convention of 1961.

international forums.[9] Despite its limited means, the League managed to convince large pharmaceutical companies to drastically reduce diversion and cut heroin production (e.g., Meyer & Parsinnen, 1998, pp. 29–32). Changing perceptions of heroin also helped the League's efforts: after World War I heroin was progressively stigmatized, denied any therapeutic value, and increasingly associated with the criminal underworld in North America and Europe. As a result, legitimate pharmaceutical companies had less and less interest in being linked to heroin, so much so that only 60 kilograms were produced yearly by 1949, down from several tons in the 1920s (de Ridder, 2000, pp. 128–129).

Coupled with the criminal law restrictions enforced by national governments, the League's successful tactic of adverse publicity also transformed the world market. In the early 1920s, the illicit trade in narcotics depended to a large extent on diverting legally manufactured drugs. Underworld members were typically located at the lowest levels of the drug manufacturing and marketing system. In combination with manufacturers and numerous middlemen and retail outlets, they diverted a portion of the product to nonmedical consumers. By the beginning of World War II, however, professional criminals were almost alone at the beginning of the process, owning clandestine factories around the world (Block, 1989; Meyer & Parssinen, 1998). The world market for opiates, thus, began to resemble today's market.

RISE AND IMPACT OF NATIONAL CONTROLS: 1906–1945

The 1912 International Opium Convention marks the first instance in drug control in which an international agreement impelled national legislation, but some countries had already passed restrictive opiate regulations even before 1912.

National Controls in the United States and Europe

Most western nations passed restrictive legislation in the years following the first International Opium Convention. In the United States, for example, a first federal bill—the Harrison Narcotic Act or "Harrison Act"—was passed in 1914, obliging anyone selling drugs to be licensed, buy a tax stamp and keep records of all sales, ostensibly for tax purposes. Despite its original regulatory approach, this act soon became the central legislation for prohibition. Following two restrictive decisions of the Supreme Court in 1919 and 1922, the prosecution of physicians and pharmacists, and the increasingly negative perception of opiates in both the medical profession and the general public, legal supplies of opiates and other drugs were sharply reduced (Courtwright, 1982, pp. 113–147).

Many European nations, including France, Great Britain, the Netherlands, and Germany, passed restrictive legislation on opiates during or after World War I. Laws differed in the stringency of their provisions and implementation. France passed in 1916 "one of the most draconian" (Charras, 1998, pp. 15–16) narcotic statutes in Europe, which, however, did not prevent French chemical firms from playing a major role in opiate production and smuggling during the 1920s (Block, 1989). In contrast, legislation in The Netherlands allowed Dutch companies to continue to produce heroin and cocaine under a licensing system. Up to the late 1930s, the Netherlands remained the principal cocaine producer and one of the main heroin producers (de Kort & Korf, 1992). In Britain, despite restrictions on opium and cocaine distribution passed in 1916, the view prevailed that addiction was a disease requiring treatment, not a vice demanding punishment. With the report of the Rolleston Committee in 1926, the so-called "British System" was born, which allowed a doctor to prescribe a drug, including heroin if necessary, for a patient already addicted (Berridge, 1984, 2005; Spear, 2005; see also Scheerer, 1981, pp. 39–67 for Germany).

National Controls in Asia

China, the main producer and consumer of opium in the late nineteenth century, began an antiopium campaign even before the International Opium Commission in Shanghai in 1909. In 1906, the Qing imperial Court issued a second edict of opium suppression requiring the curtailment of domestic opium production in even increments over nine years. The British government was a signatory to this effort because there were to be parallel declines in imports from India. The measures adopted for consumption included shutting down all opium dens within six months, registering addicts, issuing purchasing licenses, and requiring younger addicts to undergo a detoxification therapy (Zhou, 1999, pp. 25–32).

The early Chinese Republican governments continued the restrictive policy but the rise of warlords and decline of a functioning central government after about 1915 effectively ended the effort. Taxation of opium growing and distribution became a major source of revenue for individual warlords and many of them encouraged opium use (Walker, 1991). Both the Nationalists and the Communists also profited from the opium trade and its taxation (Zheng, 2005, pp. 191–198).

Interestingly, the adoption of restrictive legislation in Britain and other European countries was, in the 1920s and 1930s, rarely accompanied by restriction on opium production or the abolition of opium distribution monopolies in the colonies. The colonial powers continued to supply their Asian colonies with Indian opium, generating substantial revenues. League of Nations data show that in the mid-1920s, the number of estimated opium smokers in the main 11 Asian colonies of the European powers totaled over a million (Meyer & Parssinen, 1998, pp. 74–75). Only in 1924 did the British government commit itself to reducing Indian opium production by about 10% annually. Production in India declined but exports were still substantial up to World War II. Even in the late 1930s, the Straits Administration of the Colonial Office (covering

[9]For example, Greenfield (1997) discusses the use of information and "sunlight" in the context of the development and application of international labor standards.

Malaya and Singapore) derived about one-sixth of its total revenues from the distribution of Indian-produced opium (down from one-third in the late 1920s).

Examination of the Japanese opium control regime imposed on Formosa (Taiwan) in 1897, two years after Japan seized control of the island, shows that consistent policy changes and state monopolies are not mutually exclusive. Although sharply prohibitionist in the home country, the Japanese administration believed that the widespread use of opium in Taiwan made prohibition infeasible. It set out to register all addicted smokers, who would receive a maximum daily total; this would cut off supplies to nonsmokers, who could not purchase opium at the licensed centers. The Japanese also took control of the supply of opium to the licensed smoking dens, through the Medicine Manufacturing Bureau, which processed imported opium into the smoking form. Initially, the efforts to reduce consumption remained limited and the monopoly was an important source of revenue for the colonial administration, accounting for one-fifth of the total in the early days. During the 1920s, distribution policies became increasingly restrictive with negative consequences for the colony's finances: by 1930 opium revenues had declined to 3.7% of the total (Jennings, 1997, pp. 18–28).

As early as 1910, Iran passed the Opium Limitation Act, which imposed taxes on opium transactions to be progressively increased over the next seven years, but was largely unable to implement the provisions because of the weakness of its government structure (Hansen, 2001, pp. 98–99; MacCallum, 1928, p. 7). After World War I, the new regime of Reza Shah experimented with various ways of regulating the trade to maximize its revenues and to keep smuggling low (Hansen, 2001).

Impact of National Controls

It is not easy to single out and assess the impact of the restrictive legislations adopted, as legislative changes toward drug prohibition largely reflected changes in the very perception of opiates. David Courtwright (1982) has shown, for example, that the decline in opiate supply engendered in the United States by the passage of the Harrison Act in 1914 did not foster, but was preceded and accompanied by, the decline in demand. As earlier mentioned, opiate consumption had been falling in the United States before 1914, reflecting state-level restrictions, changes in the beliefs of medical practitioners about the dangers of opiates, and growing media and public concerns about the spread of nonmedical addiction that involved younger and poorer males (see also Speaker, 2001). The declines in opiate consumption continued after the Harrison Act, but cannot be attributed to it, as the Act merely codified ongoing social trends. According to Courtwright (1982, pp. 33–34), there could be no more than 210,000 addicts, or slightly less than two per thousand, in 1920 and their real number was probably lower than that. Nonmedical heroin use among poor underworld white males progressively grew at the expenses of medical addiction, although this did not disappear at once (Courtwright, Joseph, & Des Jarlais, 1989, pp. 8–13).

In Great Britain, too, the adoption of restrictive legislation was preceded and accompanied by a sharp decline in opiate consumption: only a few hundred addicts were registered in any year through the period 1925–1965 and there was no indication of a substantial illicit market (Johnson, 1975). Unlike the United States, possibly due to the aforementioned "British System," there was no expansion of heroin use among low-class, young males. Up until the 1960s, the typical British opiate addict was likely to be female, middle-aged or elderly, and from the middle classes; a substantial minority were themselves doctors or health professionals (Spear, 2005; Strang & Gossop, 2005). Opiate consumption also declined in other European countries, although the evolution of their opiate markets is less well documented (see de Liederkerke, 2001; Scheerer, 1981).

In China too, the first years of implementation of the 1906 edict on opium were accompanied, to almost universal surprise, by substantial reductions in both consumption and production (and imports from India; see Newman, 1989). This decline, however, must be seen in the overall changing perception of opium, which was increasingly stigmatized and seen politically as an instrument of foreign oppression (Dikötter et al., 2004, p. 790).

This assessment of China's decline in opium consumption is reinforced by the parallel decrease in opium consumption in Indonesia, where the Dutch Opium Regie continued to distribute opium until the occupation of Indonesia by the Japanese Army. Despite the lack of radical legislative changes, perception also changed in Indonesia, as opium began to be seen as old-fashioned, if not uncivilized, first among the elite and increasingly among the population at large. Only after World War I did the colonial administration subject opium smokers to some license requirements. These combined forces succeeded. It has been estimated that in the 1880s one Javanese in 20 used opium; by 1928, one Javanese in 600 used the drug (Rush, 1985).

Formosa's experience also shows that, though tangled by conflict of interests, government monopolies could eventually reform themselves and curb opium consumption. In 1900, 170,000 addicts were registered, representing 6.3% of the population. Thirty years later, the number was less than 25,000. Even though a market had emerged outside of the licensed system, particularly in rural areas, there seemed little doubt that the number of opium smokers in Formosa had declined greatly (Jennings, 1997, p. 19).

Even if they cannot be seen as the driving force of opiate consumption declines, the growing state restrictions had tangible impacts on opiate users' behavior, quality of life and legal status, and the type of drugs used and the method of administration. Certainly, not all impacts were for the better. In the United States, for example, historical evidence from the 1920s and 1930s supports the contention that the antimaintenance policy increased the amount of crime among opiate users (Courtwright, 1982, pp. 145–146). In China, too, as a result of a series of short-lasting but harsh antiopium campaigns, drug-related

crime surged. In 1931, for example, the use and sale of opium emerged as the most common criminal offences, representing 27,000 out of the 70,000 reported convictions throughout the country (Dikötter et al., 2004, pp. 126–130). Tens of thousands of otherwise law-abiding opium smokers were confined to overcrowded cells and many of them died in epidemics, while those deemed beyond any hope of redemption were simply executed. In just two years 1935–1936, almost 2,000 drug offenders were executed (Dikötter et al., 2004, p. 143).

In these two countries, heroin also spread under the new restrictive laws, because dealers and their customers came to appreciate its black-market virtues. For dealers, heroin's main advantages included its potency, its compactness and lack of odor, and the ease of its adulteration, thus, potentially multiplying their profits. Users were happy to buy heroin because it was much cheaper and easier to use than morphine or opium, but stronger and faster acting than morphine when administered in a comparable manner (Courtwright, 1982, pp. 107–110). Finally, heroin could be injected or sniffed, the latter method appealing to new or potential users who were afraid of needles (Courtwright, 1982, pp. 107–110; Dikötter et al., 2004, p. 146).

Restrictive regulations also fostered the spread of subcutaneous or even intravenous injection of heroin: as purity decreased, many addicts resorted to the most drastic and direct route of administration to derive maximum satisfaction from an increasingly diluted drugs. In its turn, the shift to the needle caused most frequently sepsis, but also hepatitis, endocarditis, emboli, tetanus, overdose, and early death (Dikötter et al., 2004, pp. 171–191); links to public health concerns have endured, but additionally and most notably to HIV/AIDS.

Coupled with international controls, prohibitionist domestic legislation also provoked the development of illegal markets for opiates in many countries and offered the most unscrupulous members of the underclass a new set of illegal commodities to sell. In the United States, the illegal distribution of opiates was primarily undertaken by criminals belonging to different national, ethnic, and other minorities, such as Chinese, Jewish, and Italian (Courtwright et al., 1989, pp. 99–100; 178–206; Meyer & Parssinen, 1998, pp. 236–266).

As legitimate pharmaceutical companies gradually stopped supplying illegal distributors, new producers sprang up. For a few years in the late 1920s, Turkey and Bulgaria became the preferred site of semilegal and clandestine factories set up by European legitimate entrepreneurs-turned-traffickers; however, by the mid-1930s, the bulk of opiate production had moved to Asia, and above all to China, which also remained the main opium producer (Block, 1989; McCoy, 1991, pp. 262–269).

DOWNSLIDE AND UPSWING: 1945–1970

A general decline in opiate consumption and the almost complete breakdown of the webs of international illegal trade characterize the first two decades after World War II. The latter phenomenon, the breakdown, stands in stark contrast to the resurgence of international licit markets that began in the 1950s (Fernald & Greenfield, 2001). With few exceptions, the remaining markets were serviced by opium and heroin largely produced nearby. The downslide turned into an upswing from the late 1960s onwards, when the heroin demand began to expand considerably first in the United States and then in Europe and several Asian countries and the current global market began to take shape. The second half of the twentieth century also saw the consolidation of the international drug control regime, with three conventions establishing contemporary policymakers' framework of reference.

National Controls and National Markets

For global opiate problems, the most significant event immediately after World War II was the rise to power of the Communist Party in China, which brought with it an effectively enforceable aversion to opiates. The elimination of opium consumption and production in China, then still by far the largest market in the world, was part of a general movement by the new Communist-led regime to end traditional ways that were seen as barriers to creating a well-functioning Marxist society. The opium suppression campaign reached its peak in the second half of 1952, when over 80,000 drug traffickers were arrested, over 30,000 were sent to prison, many for life, and at least 880 were sentenced to death. Users were forcibly rehabilitated either at home or in treatment facilities run by the government, with the exception of the elderly and the sick, who could be granted an exemption (Zhou, 2000).

Without downplaying the achievement of the Communists' antidrug crusade, Dikötter et al. (2004, pp. 208–209) convincingly argue that medical and social variables were at least as important as the political factors in the long-term decline of the narcotic culture. Penicillin began to be sold in the 1940s as the first antibiotic capable of treating a whole range of diseases that had been previously managed with opiates. The social status of opium was already on the decline in the 1930s; by then, social elites had begun to consider opium smoking morally reprehensible and old-fashioned and to praise abstinence. As in Java (Rush, 1985), tobacco smoking progressively superseded opium smoking.

In other parts of Asia too, legislative changes were promoted and reinforced by the changed perception of opium and the new availability of medical alternatives. Britain eventually prohibited opium consumption in its Asian colonies (apart from India) in 1943—while they were occupied by Japan. Immediately after the war, the government of the newly independent Indonesia abolished the Opium Regie operated by the Dutch colonial administration and also by the Japanese occupation authorities. The French colonial administration ended the legal distribution of opium in Indochina in 1950, during the war against nationalists. Thailand, which had not followed through on its 1946 promise to end the opium monopoly by 1951, did finally terminate the regime in 1959 (McCoy, 1991, pp.

179–193). The effects of these measures on consumption were mixed. Though hard to document, the disappearance of opium from Indonesia is not a contested historical phenomenon. In other countries, such as Laos and Thailand, the demand for opium declined but did not disappear and was increasingly satisfied with opium illicitly produced in the northern part of these countries and in Burma's Shan States.

The story for Iran is more complicated. Due to mounting pressure from domestic and foreign sources, the Iranian government forbade opium poppy cultivation, use, and sales in 1946. The reduction in oil revenues during the early 1950s, when Britain cut off exports following nationalization of Anglo-Iranian Oil, led to a resurgence of legal, taxed production, providing 20% of national government revenue during that period (Hansen, 2001, pp. 108–109). In 1955, the government imposed anew a complete ban on opium production and consumption (Saleh, 1956). However, the prohibition on consumption was not consistently enforced, so that Iran remained a large market for illicit opiates.[10] By 1968, the illegal market was so large that the government reintroduced legal production, which continued until the creation of the Islamic Republic of Iran in 1979 (Booth, 1998, pp. 253–254). Iran may have constituted the single largest market in the world in the 1960s.

World War II interrupted supplies to the small and declining illicit opiate market that had persisted up to 1940 in the United States and to the even smaller ones in Europe. Western markets remained very modest until the late 1960s. In 1969, filings with the United Nations showed a total of 65,000 heroin users in the United States; 2,700 in Canada; 1,400 in Great Britain; and 100 in France (Bayer & Ghodse, 1999). Though hardly the most authoritative numbers, they probably are indicative that the problem was small at the time in most countries. Only in the United States, the second postwar heroin epidemic was already in full swing by 1969, creating the bulk of the contemporary addict population (Courtwright, 2001a, pp. 165–170). Albeit not shown in the official data, heroin use had already started to go up again in the United Kingdom, while heroin only became again available in "Continental" Europe between 1971 and 1973 (e.g., Paoli, 2000, pp. 25–26 and 83–84).[11]

Consolidation of the International Drug Control Regime

Following World War II, the drug control bodies and functions of the League of Nations were transferred to the newly formed United Nations. The UN Economic and Social Council took over primary responsibility through its Commission on Narcotic Drugs (CND).

The first substantive treaty concluded after World War II was the 1953 Opium Protocol, which contained the most stringent drug control provisions yet embodied in international law. The agreement extended to raw opium the reporting provisions placed on manufactured drugs in the 1931 treaty. Upon signing, producer states committed themselves to provide UN bodies with estimates concerning the amount of opium planted, harvested, consumed domestically, exported, and stockpiled and they allowed UN bodies to make inquiries into discrepancies, conducting inspections, and imposing embargoes. In exchange for accepting such burdens, the seven producer states named in the agreement—Bulgaria, Greece, India, Iran, Turkey, USSR, and Yugoslavia—each received a monopoly on licit sales (McAllister, 2000, pp. 179–184). Interestingly, among them, neither Afghanistan nor Burma, the two largest contemporary illicit producers, was mentioned.

Even before entering into force, the 1953 Opium protocol was superseded, along with eight other treaties, by the Single Convention on Narcotic Drugs, which was opened for signature in March 1961. This treaty did not merely integrate older treaties. It also extended the scope of control to other drugs (e.g., cannabis and coca leaf), founded the INCB and was the most prohibitionist document yet adopted, though it was not as stringent as the United States and a few other western states would have wished. As the contents of the Single and two other key drug conventions (opened for signature in 1971 and 1998; see below) are well known to most readers in the drug policy community, we do not discuss them in detail.

In 1971, the Convention on Psychotropic Substances, which does not concern opiates, was opened for signature. The Convention on Psychotropic Substances placed hallucinogens under fairly stringent controls, but applied considerably weaker limitations to the trade in the drugs manufactured by western pharmaceutical companies, such as stimulants and depressants (McAllister, 2000, pp. 225–234). One year later, at the insistence of the Nixon Administration, a Protocol was adopted to revise the Single Convention and strengthen the INCB's control powers over licit and illicit opium production and illicit drug trafficking. Despite these changes, the system still focused on eliminating excess supplies of narcotics (McAllister, 2000, p. 236).

In 1971, the UN Fund for Drug Abuse Control (UNFDAC) was launched with an initial $2 million donation from the United States. Although initially seen as a US-led entity, the predecessor of the UN Drug Control Programme (UNDCP) and of the contemporary UN Office on Drugs and Crime (UNODC) gradually became an accepted mechanism of distribution and coordination of western aid to developing countries. Largely dependent on rich countries' donations, the UNFDAC and its successor agencies expended the majority of their resources on crop substitution, law enforcement, and technical assistance to national drug control agencies. However, from the 1980s onwards they have pursued, at least rhetorically, a more balanced approach with respect to demand and supply reduction (McAllister, 2000, pp. 236–238; 242–243).

[10] Wright (1958) claims that the number of users was 1.5–2 million in a population of 19 million; he offers no documentation.

[11] The expansion of heroin use, coupled with some abuses in the prescription of heroin and cocaine, led to the tightening of the "British System" in 1968: though maintenance policies were upheld, physicians lost the right to prescribe heroin or cocaine to their addicted patients, unless specially licensed (Spear, 2005).

The traditional focus on supply also inspired the UN Convention Against Illicit Trafficking Narcotic Drugs and Psychotropic Substances, which was opened for signature in December 1988. As the Senate of Canada Special Committee on Illegal Drugs states, the new treaty "is essentially an instrument of international criminal law" (2002, p. 463). Its aim is to harmonize criminal legislation and enforcement activities worldwide with a view to curbing illicit drug trafficking and consumption through criminalization and punishment.

ANALYSIS AND POLICY IMPLICATIONS

We summarize our analysis in the following six theses; we then discuss their policy implications.

The Regime Reflects Western Values and Interests

Consistent with the more extensive work of other scholars (see, e.g., Courtwright, 2001b, pp. 189–207), our historical analysis shows that the increasing control and prohibition of opiates reflected the cultural biases of the Western societies and governments: other psychoactive drugs, particularly tobacco and alcohol, have not been subject to any comparable international control regimes, because their use and production were widespread and accepted in at least some key western nations and have enjoyed, at least since the early twentieth century, more substantive corporate backing and fiscal influence than opiates (colonies excluded) ever did.

The efforts to restrict the consumption of opiates often overlooked that opium had been ingrained in the culture of Asian populations for centuries and that much occasional or even regular opium consumption (as is true of alcohol in the Western countries) was compatible with a normal lifestyle and did not produce severe health consequences. The Western colonial powers were happy to supply and tax opium consumers in most of their Asian colonies even after 1912 and, in the case of France, as late as the 1950s—a fact that should lead to more understanding for the dilemmas currently faced by poor opium-producing and trafficking countries. On the one hand, wealthy—primarily still "Western"—consumer nations—pressure these countries to curb the supply of illegal drugs, sometimes invoking the threat to reduce financial or military aid if they do not show enough determination in the "war on drugs." On the other hand, the producing and trafficking countries are hesitant to destroy one of only a few economic activities producing substantial revenues and supporting considerable portions of their respective populations. In the case of Tajikistan, for example, Paoli et al. (2009) estimate that the revenues of illicit heroin trafficking might have amounted to at least 30% of the nation's legitimate economic activity in the year 2000. If heroin trafficking were uprooted suddenly, many Tajik citizens—most of whom are not personally involved in drug trafficking—could feel the loss.

Historical evidence also shows that domestic policy reactions depend very much on the identity of the users: in several western countries and Japan, the first restrictive provisions targeted opium smoking, because this was primarily a Chinese migrant behavior (Ahmad, 2007; Tadashi Wakabayashi, 2000, pp. 66–70). Courtwright (2001a) has also shown that increasingly prohibitionist policies were adopted in the United States, at times when opiate consumption was primarily associated with the underworld or ethnic minorities (initially, Chinese, later on Hispanic and African American).

The Development of the Regime Has Been Episodic and Opportunistic

Our review of historical literature (and even more so the work of other scholars; e.g., McAllister, 2000) also suggests that the development of the international drug control regime and the parallel domestic legislation has been far from linear. The studies of several historians (e.g., Berridge, 1984, 1999; Bewley-Taylor, 1999; McAllister, 2000; Musto, 1987) have shown that even major policy turns were brought forward by influential personalities (e.g., Bishop Charles H. Brent, Hamilton Wright, Malcolm Delevingne, Harry J. Anslinger), unexpectedly promoted by epochal events (such as the onset and conclusion of World War I), or were the results of slim majorities (e.g., the 1919 US Supreme Court sentence banning drug maintenance policies was a five to four decision, see Musto, 1987, pp. 131–132).

The Regime Has Not Always Been Prohibitionist, but Always Supply-Focused

The international drug control regime has not been fully prohibitionist throughout its history. From its inception in 1909 and up to World War II, the regime by-and-large favored regulation over prohibition, with considerable leeway left to national governments to address both supply and demand. Only in the 1950s did the tone and provisions of the treaties become increasingly prohibitionist, mainly at the insistence of the United States. The 1961 Single Convention on Narcotics Drugs and the 1988 Trafficking Convention epitomize the prohibitionist approach. However, the international drug control regime has, throughout its history, maintained a clear and consistent supply-side focus, a point recently made by the Executive Director of the UN Office on Drugs and Crime (Costa, 2008, p. 13). Notwithstanding, a slight increase in attention to demand in the 1970s—paralleling the sudden resurgence in illicit drug use and a UN pledge for a balanced approach—demand control, treatment, and prevention have remained largely domestic issues. As a matter of international policymaking and implementation, traditional supply-oriented goals still dominate.

Policy Has Made Limited Contributions to Consumption Declines

The historical evidence suggests that changes in national drug control policies, some stemming from international agreements, especially the International Opium Conventions of 1912 and 1925, played a part in the reductions in opium consumption that occurred in the first half of twentieth century. Nevertheless, historical evidence, as

documented in China, Great Britain, and the United States, clearly shows that changes in societal and specifically physicians' perceptions of opiates played the greater part.

To the extent that policies played a part in the early reductions, a key element in their success was the fact that opium markets were tightly controlled and, in some cases, even directly organized by the national governments or colonial administrations. Thus, international and national policymakers had effective—or potentially effective—leverage in the opiate market, once they decided to restrict distribution and consumption. The relatively few private producers of opium derivatives were large pharmaceutical companies, which were vulnerable to adverse publicity. For these companies, it was, in the long run, not worth producing morphine and heroin in violation of international conventions and national laws, though the pharmaceutical companies aggressively lobbied against their adoption and some were involved in smuggling cases in the 1920s (e.g., Block, 1989, pp. 318–320; Meyer & Parssinen, 1998, pp. 25–36).

Another important difference between then and now is that the distribution system for illicit opiates was not global. Early attempts at internationalization in the 1920s and 1930s were disrupted by World War II; illicit markets developed, instead, on a local or regional basis. Up until the late 1960s, following the gradual exit of national governments, colonial authorities, and large-scale pharmaceutical companies from the supply-side of the market, there were no strong connecting links between segmented markets.[12]

Prohibition and Interventions Have Serious Unintended Consequences

The consolidation and expansion of the control regime in the 1960s, 1970s, and 1980s, to include prohibition against consumption, did not prevent renewed expansion of opiate consumption or the tendency toward mass markets and widespread distribution networks—nor does the adoption of the more stringent policies appear to have caused them. The enactment of restrictive legislation was not without effects on consumption. It engendered first of all a shift from opium to heroin, which was much more practical as an illegal drug; it fostered the spread of injecting drug use; and, in prohibitionist regimes, it discouraged if not prevented users from seeking medical help. In many contexts, drug users themselves were criminalized and suffered harsh declines in their quality of life.

Moreover, we believe that supply-side interventions and, specifically, the prohibition of opiate production and trade affect the structure and functioning of the market. Contemporary suppliers are much less sophisticated and stable than the big players, primarily large and well-established pharmaceutical companies, of the early twentieth century—a notable consequence of the international drug control regime. The relative disorganization of today's suppliers has both advantages and disadvantages. Few producers or traffickers have enough means and authority to influence the international regime; at the same time, the international regime has neither the means nor the authority to rein them in with legislation, regulation, or sunlight, as it did the early pharmaceutical companies.

History is a Treasure Trove of Policy Experiments

The fact that the international drug control regime initially lacked a clear prohibitionist rationale is one reason that historical evidence provides insight on the advantages, drawbacks, and risks of different policy options. In the course of the past two centuries, one can find an extraordinary variety of policies concerning both opiate supply and demand, ranging from an almost complete absence of regulation to almost complete prohibition.

Among these options, the most interesting may be the regulatory regimes of the colonial era. These regimes clearly presented advantages for users and may have lessened drug-use-related harms; however, governing bodies faced substantial conflicts of interest in reconciling demand reduction with revenue accumulation. Despite these conflicts, some such regimes, most notably that in Formosa under the Japanese occupation, were able to reform themselves and help reduce the consumption of opiates.

Would a regulatory regime be possible today?

Since the 1990s, several European nations, including Switzerland, the Netherlands, and Germany, have introduced heroin maintenance programs for heroin addicts who are not responsive to other treatment methods. They resemble embryonic state monopolies for quasimedical opiate distribution, but, given their very modest enrollment, they have limited capability to reduce parallel illegal markets.

The issues surrounding a broader-based regulatory approach, one that might encompass production, are more complex and require deeper consideration. For example, it may be much more difficult to control production and distribution in the global market of the current era than in the mostly local and regional markets of the colonial era. India's experience with diversion from regulated pharmaceutical production (e.g., Paoli, Greenfield, Charles, & Reuter, 2009) also suggests substantial practical barriers, more so in countries with weak governing institutions, and the likely persistence of a parallel illegal market. Nevertheless, the League of Nations was, despite its limited powers, quite successful in curbing the legal production of opiates in the 1920s and early 1930s exactly because the main producers were legal pharmaceutical companies vulnerable to adverse publicity. Needless to say, finding answers to these questions goes beyond the scope of this article.

[12]To date, the market is still segmented in so much as opiates tend to travel along established routes from particular sources to particular destinations and are less fluid than legitimate international markets. Nonetheless, those routes span the globe (e.g., Afghanistan to Western Europe via Central Asia and Russia or Iran and Turkey); moreover, the routes can and have changed in response to changes in market conditions.

Policy Implications

A close examination suggests that the international system of controls is not immutable: change has happened in the past and change is possible in the future. Without abandoning international coordination and cooperation, one might, for example, consider reintroducing some of the flexibility of earlier eras in allowing countries to adapt policy to their own circumstances. This could also lessen the impatience that an increasing number of European nations have, for some of the INCB's, very restrictive interpretations of the conventions. As noted above, some European countries have chosen to ignore the INCB's sharp criticism and have introduced heroin maintenance programs. Such experimentation with domestic programs has, so far, largely concerned the demand side of drug markets, but some supply-side alternatives (as discussed in Paoli et al., 2009, pp. 251–255) may be possible.

A political will for reform may be coalescing slowly. A growing number of policymakers in Europe and elsewhere informally agree that the time may have come for an assessment of the international drug control regime including the possibility of a new, more flexible Single Convention (see e.g., Jelsma, 2005). It is not yet clear if their efforts will gain momentum or even persist, as the procedures for changes in treaties are complex, time-consuming, and riddled with political barriers.

In any reform process, it will be important to assess the costs and benefits of the current regime and proposed reforms and to identify potential "winners" and "losers"—a task in which independent researchers should play a key role. This assessment must consider more than the explicit drug control objectives, in particular the containment of illegal drug consumption and the resulting health and social costs, which have been dominant in discussions that are generally initiated by the developed world. The assessment should also consider the effects on producing and trafficking countries, such as the weakening of the state and distortion of socioeconomic development. It will not be possible to monetize many, perhaps even most, of these effects to conduct a full-blown cost-benefit analysis. Nonetheless, the exercise of listing them and considering their scale will assure that discussions of the international regime truly reflect global concerns, not just those of the richest countries. Attention to this issue is crucial for the long-term legitimacy of the international drug control system. To date, even the long-standing acrimonious debate between "legalizers" and "warriors on drugs" has focused largely on the rationale and the costs and benefits of the current policy regime in developed consuming nations. At least for opiates, no systematic attempt has been made to weigh costs and benefits more globally.

By considering the historical impact of the regime on the opiate market, the present article may be considered a preliminary step in that direction.

Declaration of interest

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the article.

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Since the early 1990s, she has published extensively about the Italian mafia (e.g., *Mafia Brotherhoods: Organized Crime, Italian Style*, Oxford University Press, 2003), organized crime (e.g., Fiijnaut and Paoli, eds., *Organised Crime in Europe*, Springer, 2004, and Paoli ed., *Handbook of Organized Crime*, Oxford University Press, 2011), and illegal drugs and related control policies (e.g., together with Greenfield and Reuter, *The World Heroin Market: Can Supply Be Cut?*, Oxford University Press, 2009). While organized crime and illegal drugs still count among her main research interests, Paoli has recently started investigating the trade in doping products, with a project on the supply of doping products in Italy funded by the World Anti-Doping Agency (WADA).

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