
Introduction

THE EUROPEAN PARADOX



Palace of Electricity, Paris World Exposition of 1900. Source: Brooklyn Museum.

Proud of the steady improvement in their lives, most middle-class Europeans greeted the dawn of the twentieth century with optimism. During the summer of 1900 the Exposition Universelle in Paris showcased confidence-inspiring inventions and offered futuristic designs that enthralled some fifty million spectators. Its permanent buildings and temporary pavilions at the Champs de Mars as well as the newly opened Metro underground were a strange mixture of historicism and modernity, blending an idealized past with an art nouveau present. Connected by a moving sidewalk, exhibits showed such innovations as a gigantic telescope, the diesel engine, and a fast locomotive along with photographs of big bridges and other technical accomplishments. The chief attraction was the Palace of Electricity, a shining display of artificial light that foreshadowed what one French illustrator called “the electrical life” of the future. The world fair’s splendid display of “the wonders of science and technology” reinforced public “faith in uninterrupted and unstoppable progress.”¹

More critical spirits, nonetheless, warned that the “enormous mechanization of life through capitalism and the modern superstate” was creating a dangerous crisis. Scottish Labour Party leader Kier Hardie worried about the arms race on land or sea and the threat of war with new kinds of weapons, while others were more concerned about the perils of imperialism. Social commentators were divided between critics of decadence who feared “the anarchy of the masses” and writers such as Emile Zola, who loathed the pursuit of money in department stores and the heartless exploitation of laborers in the mines. The chief rabbi of Britain, Hermann Adler, feared “the recrudescence of racial antipathies and national animosities,” while other moralists deplored “that infernal selfishness called by pseudo-philosophers ‘individualism.’” The novelist Conan Doyle scorned “the ill-balanced, excitable and sensation-mongering press,” whereas one society dame warned of the growing “laxity in the matter of marriage.” Some perceptive observers sensed that beneath the thin veneer of civilization a “most terrible and malignant form of barbarism” continued to lurk.²

In spite of such forebodings, most commentators of the *fin de siècle* remained confident in the future, since they naturally extrapo-

lated from their previous advances. Engineers predicted that exciting scientific discoveries and technical inventions would continue to characterize the new century. Social reformers hoped that agricultural improvements, better hygiene, and safer housing would make lives longer and more comfortable, allowing humankind finally to escape hunger and cold. Intellectuals and artists expected that increasing freedom of expression and experimentation would permit them to expand the boundaries of accepted truths and taste. Businessmen were sure that colonial conflicts would be resolved and that Europe would remain peaceful, enabling them to intensify trade and exchanges across frontiers. Even the leaders of the labor movement proclaimed: “The new century belongs to us!” Although the sociologist Werner Sombart worried about the “total transformation of all ways of life,” there was much reason to believe that further progress would solve any remaining problems.³

THE PROMISE OF MODERNITY

The key concept that sought to capture this exciting sense of advancement was the term “modernity.” Introduced by French symbolist poets during the 1870s to justify their artistic departure from the realist style, it rapidly spread as a rationale for initiating change. A decade later members of the Berlin literary scene picked up the label to legitimize naturalism as a more expressive and critical form of writing about “modern life,” while some avant-garde artists in other fields embraced the notion of “modern art” in order to experiment with atonal music or abstract painting. Bourgeois intellectuals who sought to reform middle-class lifestyles similarly adopted the word, while scientists and inventors also used it to promote their discoveries. Around the turn of the twentieth century, the appellation therefore became popular in intellectual circles as a concept that suggested breaking with traditions by exploring new possibilities.⁴ Initially designating innovative impulses, the clarion call of “modernity” became a code word for a liberating sense of progress.

Denoting opposition to the past, the adjective “modern” possessed a protean character, which made it difficult to pin down its

precise meaning. Dictionaries suggest that the notion was originally coined in the Renaissance to designate an epoch different from the classical heritage of the ancients and also from the period of religious superstition and political confusion in between, known as the Middle Ages. The relational nature of the term that denotes difference from a preceding era provided little fixed content of its own, because the present remained a moving target, forever undergoing change. As a result of this fluidity, successive sets of cultural avant-gardes that sought to break with tradition could claim to be “modernist,” no matter what their actual style. Finally, modernity might also suggest a progressive philosophical outlook, a secular stance that was dedicated to rational thought and social improvement.⁵ Since these connotations tended to intermingle freely, they speeded the diffusion of the term by leaving open what was really being referred to.

In their reflections on the rapid transformation of Europe around 1900, social scientists like Emile Durkheim formulated a theory of societal evolution that stressed the process of becoming modern. The resulting notion of modernization identified essential aspects of European development such as the scientific, industrial, and democratic revolutions and universalized them into a normative construct that prescribed their outcome as desirable. Transferred to the United States by Talcott Parsons to embody the “highest aspirations of American liberalism,” the concept optimistically “defined a universal, historical process through which *traditional* societies became *modern*.” During the Cold War this modernization theory became a democratic alternative to Marxist ideology by promoting economic development through unleashing the dynamic spirit of capitalism to spur a series of stages of growth. In textbooks, the concept therefore acquired a sense of sociological determinism that saw it as a universal process of change in which the Western world functioned as yardstick and developmental goal.⁶

This narrowing of modernization theory into a Cold War ideology has provoked fierce criticism from a variety of directions. Some global historians have suggested that the term should be abandoned entirely because its underlying reference to the European experience makes it too “Eurocentric.” Similarly, several postcolonial anthropol-

ogists who engage in “provincializing Europe” have argued that overt racism and ruthless exploitation subverted the purportedly humane goals of the imperial modernization project. At the same time post-Holocaust thinkers such as Zygmunt Bauman have emphasized that ethnic cleansing and mass genocides contained considerable elements of modernity, revealing that what claimed to be a benign process possessed a dark underside.⁷ Finally, environmental historians, sensitive to “the limits of economic growth,” have stressed the inevitable ecological damage of unbridled urbanization and economic development. Taken together, these critiques have turned “modernization” from a widespread aspiration into an intellectual problem.

Instead of abandoning the notion altogether, it would be more productive to approach modernity from a critical historical perspective. Historian Jürgen Kocka correctly stresses that “there is no other concept which can encapsulate a whole epoch as suggestively, relationally and powerfully within diachronic processes of long-term change.” Historicizing the term involves deconstructing its shifting meaning according to the time, place, and speaker behind it. Such a perspective uncovers a host of conflicting contemporary references to the concept as well as an amazing, but often uncritical, proliferation in the scholarly literature. More importantly, the competing liberal, communist, and fascist blueprints for economic and political development suggest a pluralization of the notion into “multiple modernities.” Finally, such an approach reveals the fundamental ambivalence of the transformative changes, engendering both enormous benefits and frightful suffering.⁸ Rather than positing modernity as a self-evident standard of civilization, these reflections will treat it as a complex problem to be approached historically.

In order to explore the ramifications of this concept, the following exposition will focus particularly on four central dimensions. First, it will discuss the varied meanings of the adjective “modern” as references to a historic period and an ever-changing present. Second, the text will analyze the term “modernization” as a description of the process of becoming modern, since it served as a label for political efforts to transform a “backward society,” for instance in trying to turn peasants into Frenchmen.⁹ Third, it will scrutinize the

cultural style of “modernism” as an innovative claim of competing artistic movements that agreed only on the rejection of tradition while promoting a broad range of differing avant-garde forms. Fourth, it will explore the general notion of “modernity” as an explicit vision of the future that has served as a projection screen for a whole host of rivaling images of a better life. The multiple connotations of these closely related linguistic constructs offer important clues to the twentieth-century travails of the age-old search for progress.

Confronted with modernity’s rapid innovations, Europeans experienced the dynamism of these transformations as a series of exhilarating and unsettling accelerations of changes in their daily lives. On the one hand scientific discoveries and technological breakthroughs such as the automobile and the airplane brought a proud sense of excitement, because they opened up surprising possibilities of speed and power that overcame barriers that had limited human mobility for centuries. On the other hand, such advances as the assembly line and area bombing also inspired fears because they permitted a shocking degree of economic exploitation and mass killing during warfare. Producing continual upheavals with an uncertain outcome, this unstoppable quest for progress combined intoxicating possibilities with appalling threats—creating a novel sense of turbulence that characterized twentieth-century lives.¹⁰ Since Europeans considered themselves as the epitome of progress, the following pages will endeavor to address the multiple challenges of modernity as a frantic search for political solutions that might master its relentless drive.¹¹

THE DYNAMISM OF EUROPE

By 1900, thinkers like Max Weber had already begun to wonder about the sources of Europe’s exceptional dynamism, while fearing that this force might someday turn destructive. Contemporaries advanced all sorts of contradictory justifications, ranging from Christianity to racial superiority, and later scholars explained the “great divergence” in economic development with factors such as commercialization, market competition, colonial exploitation, institutional culture, and

state intervention. Although other civilizations, notably in Asia, had also achieved a high level of prosperity and cultural sophistication, something happened in Europe by the end of the eighteenth century that made it possible for its nations to dominate most of the globe.¹² The African observer Cheikh Hamidou Kane marveled at the ambiguity of this “de- and constructive, violent, abhorrent and attractive power” that could kill and heal at the same time.¹³ Without falling into the normative trap of Eurocentrism, the explanatory challenge remains: What made the modern Europeans so different that they were able to control the rest of the world?

One important reason was the spread of a rational outlook that produced scientific discoveries and technological innovations. No doubt, without the preservation of learning by the Church or without the transmission of knowledge from the Arab world, the “scientific revolution” would not have been possible. But the spirit of empirical inquiry emancipated itself from the authority of the classical texts and dictates of the Christian religion so as to venture beyond. While building on the reception of information from other high cultures, European thinkers developed their insights further in a series of remarkable breakthroughs that transformed their understanding of the world. The astounding burst of technical inventions from the eighteenth century onward provided a whole new range of machines, notably the steam engine, to conquer nature, improve production, and speed transport as well as communication. Ultimately this process was sustained in institutional form by the European university, which in mid-nineteenth century adopted the “research imperative” as an ethic leading to ever further discovery.¹⁴

Another significant cause was the emergence of capitalism and industry, which produced an unprecedented accumulation of wealth. Other civilizations like the Chinese also had extensive trading networks, but economic development in Europe eventually exceeded such models by inspiring a capitalist spirit determined to acquire ever greater profit. In a continent blessed only with modest natural resources of iron and coal, this attitude propelled entrepreneurs in search of raw materials and markets beyond their regions and around the globe, and made them create organizational forms such as the

joint-stock company and the stock exchange to raise capital. Coupled with technical inventions, their quest sparked what is known as “the industrial revolution,” by mechanizing textile production, digging vast underground coal mines, expanding iron foundries into steel factories, and developing steamships as well as railroads. Aided by a combination of state support and laissez-faire liberalism, the rise of capitalist industry not only facilitated the mass production of goods but also provided the material basis for European ascendancy.¹⁵

An important societal dimension of difference was the development of individualism and the increase in social mobility. The discovery of the “self” during the Enlightenment loosened the collective bonds of estate or corporation and endowed the individual with responsibility for the conduct of his or her own life. Unlike in African societies where tribal loyalties remained strong or in India where one’s place was fixed in a caste system, traditional forms of deference weakened sufficiently in Europe to allow persons to think of making their fortune by their own exertions—thereby creating an increasing dynamic of social mobility. The hope of advancing through hard work, celebrated in Samuel Smiles’ bestseller *Self-Help* of 1859, motivated countless individuals to strive to better themselves, thereby creating much energy. The search for greater opportunity also led to increasing migrations, both from the countryside to the expanding cities and across the Atlantic toward the New World. The growing restlessness of Europeans was an important psychological motivation for their dynamism.¹⁶

The incremental emergence of the rule of law, which eventually produced a conception of fundamental human rights, was a final, and often forgotten, factor. Even absolutist monarchs like the Prussian king Frederic the Great figured out that the advancement of commerce and maintenance of religious peace required the sanctity of contracts, the security of property, and binding legal rules of tolerance. In a series of contests between rulers and ruled, punctuated by the French and subsequent continental revolutions, subjects won a number of civic rights, protecting them from the depredations of the state. Freedom of speech led to the emergence of a public sphere, while freedom to assemble facilitated the formation of a pluralistic

civil society. Enshrined in constitutions, these hard-won civil rights permitted first the middle class and eventually even the proletariat to participate in political decisions. Though the social, racial, and sexual boundaries of such citizenship remained contested, most European men no longer lived under arbitrary rule and felt secure enough by 1900 to involve themselves in public affairs.¹⁷

These preconditions led to the development of a novel set of political arrangements, called the nation-state, which also profoundly differed from those of the rest of the world. While Eastern Europe was still dominated by the Russian, Habsburg, and Ottoman empires, composed of different ethnicities and religions, in the wake of the French Revolution the western monarchies transformed themselves into new, more homogeneous polities, claiming to consist of a single nation. This national ideal rested on a shared language, a similar past, and a common citizenship that transcended all prior internal distinctions by creating a single body politic based on firm control of a territory, with one constitution, set of laws, coinage, and internal market, facilitating growth and trade. This imagined community proved so attractive to Italian and German intellectuals that they attempted to unify their fragmented principalities into one newly created nation-state as well.¹⁸ By mobilizing its citizens, this new political organization grew not only more powerful than traditional empires but also proved capable of acquiring colonies overseas.

The success of the nation-state model rested in part on its unprecedented capacity for resource mobilization through an efficient bureaucracy and a universal system of taxation. In contrast to the pre-revolutionary sale of offices or the Ottoman corruption by *bakshish*, the administrative corps of the nation-state was supposed to be competent and impartial, because it received a state salary and pension privileges. Offices were to be filled on the basis of certified university training in law or other disciplines instead of being awarded as a result of family connections or political patronage. Moreover, taxes would no longer be arbitrarily assessed but based on objective criteria, making the collection of revenue so reliable and transparent that governments could plan ahead. In return, citizens would be guaranteed domestic peace and equality before the law. Though not

always living up to the ideal, the bureaucratization of administration proved more efficient and predictable than earlier practices, making it possible for the nation-state to expand its services into ever new domains.¹⁹

A second pillar of the European nation-state was a reformed military that allowed it to project an unprecedented amount of force against its enemies within or without. In contrast to the costly mercenaries of the *ancien régime*, the revolutionary concept of citizens in arms rested on the obligation of universal male military service. In case of attack from the outside, it allowed the creation of mass armies at a limited cost and provided the state with an opportunity to indoctrinate its recruits in their national duties. At the same time technical inventions such as the repeating rifle, machine gun, hand grenade, and heavy artillery made it possible for European soldiers to kill a much greater number of foes than with muskets and bayonets. Similarly the emergence of the gunboat, battleship, and submarine made naval warfare more lethal and permitted attacks on overseas targets, far from their home base. Finally, the meticulous logistical planning by general staffs maximized the efficiency of troop movements. Taken together, these traits were the foundation of European military superiority.²⁰

The international order, dominated by these European states, consisted of an informal “nonsystem” that left nations free to compete against one another. Since previous attempts at hegemony, most recently by Napoleon, had been defeated, the continent remained fragmented into several dozen independent states. Chief among them were the five great powers who ruled their neighbors in a “pentarchy” that remained flexible enough to have dynamic newcomers like Prussia/Germany replace old declining members like Spain. The British called this system “balance of power,” since they carefully watched that no continental state would become powerful enough to challenge their empire. Hence German chancellor Otto von Bismarck always wanted to be allied to two other states out of the five in order to remain secure. Conflicts among smaller countries or the big powers were resolved by international congresses or diplomatic negotiations according to the principle of compensating one state for

the gains of another.²¹ The system had but one fundamental flaw—its readjustment required war.

Though endowing the leading European states with unparalleled power, these dynamic developments also created enormous tensions that threatened to erupt at any moment. Perceptive critics who were troubled by a sense of impending crisis pointed to a multitude of unresolved conflicts. In the process of dividing up the globe, colonizing claims often clashed with each other as in the Sudan, while indigenous populations as in India tried to rise up against the foreigners. At home, industrialists and landowners who benefited from exploiting labor engaged in fierce class warfare with the proletariat, which was organizing into trade unions and socialist parties. In public opinion, the yellow press fostered nationalist hatred that deprecated other countries, while agitators fanned ugly racial prejudice. In the eastern empires national liberation movements tried to escape the center's domination by clamoring for self-determination.²² At the turn of the century Europe was therefore a rapidly developing continent with enormous power, but also a society rent by deep fissures that would eventually tear its countries apart.

AMBIVALENCES OF PROGRESS

While building on previous works, this book presents a distinctive interpretation of twentieth-century European history, focused on the fundamental ambivalence of modernity. The story line of ineluctable progress, prevalent in Western Civilization textbooks, fails to do justice to the immense suffering of the world wars. Mark Mazower's inverted counterpart of the *Dark Continent*, which focuses on the enormity of the crimes of ethnic cleansing and the Holocaust, does not sufficiently explain the dynamics of postwar recovery. Neither Eric Hobsbawm's leftist lament about the defeat of the communist project nor Richard Vinen's celebration of the advances of consumer society captures the full complexity of European developments. Tony Judt's social democratic account of postwar rehabilitation comes closer to the mark, but it lacks a vital discussion of the first half of the century.²³ Stimulating in their different ways, these accounts fail

to offer a comprehensive and balanced framework for discussing the disasters and the achievements of Europe during the past century.

This reflection differs from the existing literature therefore in several important ways. In contrast to other authors who start earlier or later, this book begins with the intensification of modernization that produced the apogee of European imperialist power in 1900. Instead of fading out with the youth rebellion of 1968 or the peaceful revolution in 1989, it takes the last quarter of the twentieth century seriously as an epoch with a distinctive character that needs explaining in order to provide perspective on the perplexing challenges of the present. Whereas many culturalist portrayals privilege impressions and feelings, this presentation retains a focus on politics, international affairs, and wars, while expanding the causal discussion to economic dynamics, social changes, and cultural currents. The following pages also reflect a discursive understanding of the past by framing its arguments in reference to competing views of major issues. Finally, instead of just offering a detailed narrative, this book sets out to present a consistent interpretation by exploring the struggle between competing conceptions of modernity.²⁴

In order to capture the complexity of the European past, the subsequent reflection will go beyond essentialist definitions and explore constructivist and relational approaches. On the one hand it interprets the continent's dynamism as an intensive space of communication and shared experience, stemming from its ancient, Christian, Renaissance, and Enlightenment roots. On the other, it approaches Europe as a discursive construct of inside commentators and outside observers, since its center, frontiers, and values have continued to shift.²⁵ Attempting to avoid the usual West European bias, this synthesis gives more space to developments in Central and Eastern Europe and places the continent in a global context in order to trace its imprint upon the world as well as the world's impact upon it. In order to discern common patterns beyond the still-powerful nation-states, it also focuses on a series of major crosscutting issues such as depression or decolonization and concentrates on a handful of leading countries, while turning to smaller states at special flash points that illuminate important transnational developments. Because of the

lack of a common polity before the European Union, this reflection does not pretend to present a single story of Europeanization but rather proceeds in terms of plural yet intersecting histories.²⁶

Instead of looking at Europe primarily through the lens of painful memory, this account also stresses the continent's lively present. Tourists tend to be attracted by the romance of ancient cathedrals, towering castles, and splendid patrician houses of the old town centers with their cobblestoned streets. More perceptive visitors also see the many scars of war such as gaps from bombing, bullet holes in walls, military cemeteries, and memorials to the victims of bloody battles.²⁷ But this book argues that the continent is not just a museum, since life goes on in gleaming modern cities with elegant shopping districts, connected by high-speed rail and crisscrossed by efficient mass transit, full of well-dressed people that seem to be quite oblivious of the past. In recent years immigration has brought different colors to the faces in the crowd—head scarves and burkas mingle with miniskirts and jeans, while mosques are starting to compete with churches. This presentation therefore explores the tension between a problematic past and a promising present in order to decode the particular version of liberal modernity that is European.²⁸

Such an approach raises new questions about the hopes unleashed by the drive for modernization as well as the resistance to it and the conflict between its competing ideological versions which dominated the entire twentieth century. Why did the promise of progress capture so many leaders, businessmen, professionals, and workers by suggesting a path to a better future? These advocates of change had to vanquish a whole host of defenders of tradition who rejected innovation in order to preserve their established order and lifestyle. What were the pressures that fragmented the project of advancement into liberal, communist, and fascist ideologies, each promoting a different blueprint of the future? The conflicts between these programs enhanced the malignant sides of the process, causing untold new forms of suffering in the war of annihilation and Holocaust. How did the ravaged continent reemerge out of the rubble to recover a chastened sense of modernity? By analyzing the manner in which the Europeans used the potential of progress, this book encourages a

more critical understanding of the chances and dangers posed by this quest.²⁹

Focusing on the ambivalences of modernity makes some well-known events appear in a new light and brings other, more neglected developments into sharper relief. It suggests that the first quarter of the twentieth century was dominated by an optimistic faith in progress due to the visible improvement of middle-class lives by science, prosperity, and peace. The deadliness of industrial warfare therefore came as an enormous shock that seemed to prove the critics of modernity right, because it inflicted immense suffering in the trenches and at the home front. Undaunted, leading politicians nonetheless proposed several competing ways out of this predicament. The liberal, communist, and fascist visions of modernization promised to resume progress, if only their prescriptions were followed. Though the transition to peace proved difficult, by the mid-1920s it seemed that conditions were improving sufficiently for hope to return. Moreover, intellectuals experimented with cultural modernism, leaving the restraints of tradition behind. Reemerging from the trauma of World War I, Europe appeared poised on the brink of additional advancement.

Such a perspective also shows the dangerous potential of modernity that brought Europe close to self-destruction during the second quarter of the twentieth century. Reversing the trajectory of development, the Great Depression sowed deep doubt about the survival of democracy. The stunning success of Stalinist modernization in the Soviet Union attracted many intellectuals from the West who praised the Soviet model of radical egalitarianism as path to the future. Other critics of democracy and communism turned to the organic modernity of the Nazis, which promised to reconcile social order with technical advancement in the people's community. The murderousness of the Second World War far surpassed the carnage of its predecessor, while the social-engineering projects of communist class warfare and Nazi ethnic cleansing as well as Hitler's Holocaust were expressions of a modernity run amuck. As a result of the intensity of the fighting, most of Europe looked like moonscape, with its dazed in-

habitants struggling for mere survival. Dictatorial social engineering therefore wreaked enormous destruction.

This focus also reveals that the Old Continent did not remain prostrate but reemerged out of the ashes by embracing a conservative version of modernization in the third quarter of the century. Aided by the United States, the western part seized the chance to stabilize democracy through the welfare state, while the eastern half faced Sovietization. The resulting Cold War crises were fortunately contained by the fear of nuclear annihilation, while the loss of the colonies rid Europe of its imperial baggage. The economic integration of Western Europe showed that the lessons of nationalist hostility had been learned, while the Eastern version remained under dictatorial Russian control. In contrast to the interwar period, most Europeans accepted modernity after the Second World War, because it brought them noticeable benefits by raising living standards and improving consumption and entertainment. On both sides of the Iron Curtain politicians were convinced that they were able to realize the benign potential of progress by planning social reforms. Once again, modernization became the watchword of peaceful coexistence between competing blueprints of the East and West.

This approach finally indicates that an unforeseen cultural revolt against modernity and the transition to postindustrial society shook the recovered confidence in progress in the last quarter of the century. The youth rebellion, new social movements, and postmodern criticism rejected the rationalist synthesis of classical modernism. At the same time the economic transformation in the wake of globalization undercut the social underpinnings of social democratic planning. Facilitated by the end of the Cold War, the “peaceful revolution” of 1989 overthrew communism and thereby left only democratic modernization as model for the transformation of Eastern Europe. But new global challenges of economic competitiveness, “poverty migration,” and international terrorism quickly ended the feeling of triumphalism. Around 2000 Europe faced the task of defending its own version of welfare capitalism against the hegemony of the American model and the rising Asian competitors. By highlighting the

hopes and disappointments of this quest for progress, this perspective provides a fresh reading of the continental travails of the twentieth century.

Though interests are shifting toward other regions of the globe, the European case remains important because it represents a telling example of the failures and successes in confronting modernization. The rise, fall, and rebirth of the Old Continent in the twentieth century presents a highly dramatic story, driven by exceptional individuals, full of surprising twists and turns of fate. On the one hand it can be read as a cautionary tale of the terrible consequences of social engineering in Stalinist Russia and Nazi Germany, which left a trail of suffering and death on a scale that is hard to imagine. On the other hand it also offers an encouraging narrative, because it demonstrates that societies close to self-destruction can recover by learning the lessons of a murderous past and cooperating for a better future.³⁰ Underlining the dangers of self-destructive warfare and exploitative capitalism, the European experience finally emphasizes the importance of safeguarding the stability of democracy through peaceful cooperation and an enabling welfare state. The key lesson of a century of turmoil is therefore the need to master the dynamism of modernity in order to realize its benign potential.