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Special edition



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Noam Chomsky

Foreword

The Editors

Rozana Reigota Naves

Heloisa Maria M. Lima Salles

Eloisa N. Silva Pilati

This work has two main objectives. It is intended to officially record the presence of linguist, professor and researcher Noam Avram Chomsky in an award ceremony held virtually on September 20, 2020, in which he was conferred the title of Doctor *Honoris Causa* by the University of Brasilia (UnB). It is also intended to carry on the publication of the Lucia Lobato Collection, with this special volume marking the 15th anniversary of her death.

At the beginning of the ceremony, which also marked the opening of the University Week, Professor Eloisa Pilati (Institute of Letters) welcomed our honoree and recalled his visit to UnB in 1996, at the invitation of Lucia Lobato, emphasizing the relevance and symbolic value of that moment and the title *Honoris Causa* to the University of Brasilia.

The great contributions of Professor Chomsky, both in Linguistics and in Politics, were highlighted by the Head of the Academic Center of Letters (CALET), Talita Moraes, who thanked professor Chomsky for his work in favor of education

and democracy. The President of the Faculty Association of the University of Brasilia (ADUnB) also highlighted the vital role of professor Chomsky as a political activist, a defender of workers values, and as a fighter against injustices.

This special volume is prefaced by colleague, professor and researcher David Pesetsky, from the Department of Linguistics at MIT, who was also a member of the committee devoted to welcoming professor Noam Chomsky at the virtual ceremony. Following the preface, we present the official speeches of the Rector, professor Márcia Abrahão Moura, and the then Director of the Institute of Letters, professor Rozana Reigota Naves. Next, professor Heloisa Salles's Institute of Letters words bring to light the contributions that make our honoree "a personality that is distinguished by knowledge or by acting in favor of the arts, sciences, philosophy, letters or better understanding among peoples", as defined by the UnB Internal Regulations for the award of the title *Doctor Honoris Causa*. This work culminates with the acceptance speech of professor and researcher Noam Chomsky.

The voice of our esteemed master, professor Lucia Lobato, is greatly missed in this volume, as it was during the ceremony. However, each one of us—authors, participants at the ceremony, and readers of this work—represent her. This book, which is published in a bilingual version (Portuguese and English), is, above all, a tribute to Lobato. She was the one responsible for opening the path for generative linguistic research and for strengthening our scientific ties to Professor Chomsky.

We could not end this Foreword without expressing our gratitude to: Professor Enrique Huelva Unternbäumen, for en-

couraging the event and this publication; Valeria Wasserman Chomsky, translator and spouse of the honoree, whose role as a mediator was essential to the proper organization of the event; the UnB Ceremonial team and the staff from Decanato de Extensão involved in the organization of the University Week; the translators who worked at the ceremony, in particular to Quimera, a Junior Enterprise from UnB, responsible for the videos' subtitles.

With this publication, we want to reinforce the importance of preserving institutional memory, whether by documenting events like this, or by remembering the great names that are connected to the institution. Among these great names, we include Professor Noam Chomsky, who officially became a member of our community through the bestowal of the title of Doctor Honoris Causa, and professor Lucia Lobato, who has been recognized nationally and internationally for her research.

Preface

David Pesetsky

Ferrari P. Ward Professor of Modern
Languages and Linguistics
Department of Linguistics and Philosophy
Massachusetts Institute of Technology

What an honor it was to be asked to introduce and salute my teacher and colleague of so many decades, Noam Chomsky. The occasion was the awarding of the honorary degree of Doctor honoris causa by the University of Brasilia—home to one of the world’s best research centers in Linguistics and one of my favorite departments, which I have visited for workshops and conferences many times.

I am so impressed with this department’s strong and continued commitment to scientific progress, despite all the difficulties that surround us right now, in Brazil and elsewhere. And in the midst of everything, quite remarkably, our colleagues in Brasilia have taken the time to honor Noam Chomsky, founder of the modern field of Linguistics, who set the agenda for all of us, and made the fundamental contributions on which we build.

It was a wonderful thing to be able to participate in the virtual ceremony honoring Noam’s contribution—and now

the University of Brasilia marks that historical moment for Brazilian science with this book, a compilation of speeches given during this special event. I am honored once again to have been asked to adapt my remarks as a preface.

I hope and trust that sometime in the very near future we will all be able to gather for a continued celebration, this time in person.

Courage, boldness, and appreciation for knowledge

Márcia Abrahão Moura

Rector

University of Brasilia

It is a huge pleasure to welcome this evening one of the greatest intellectuals of our time, Professor Noam Chomsky. It is a privilege to the University of Brasilia to have Professor Noam Chomsky among the recipients of the Doctor *Honoris Causa* title. The bestowal of this honor coincides with the opening of our *Semana Universitária* (University Week), the biggest event in our academic calendar. In this year's edition, we have planned more than 1,000 activities. Most of them will be taking place online, a sign that UnB remains active and strong, despite the numerous challenges posed by the pandemic.

Our institution was created by the anthropologist Darcy Ribeiro and the educator Anísio Teixeira, two figures who imparted an *avant-garde* character to Brazilian higher education. UnB was inaugurated in 1962 with an innovative pedagogical project and a concept that, to this day, is the cornerstone of public education: university autonomy.

I say this because Mr. Chomsky embodies some of the fundamental values underpinning the conception of our University: courage, boldness, and an appreciation for knowledge. I could spend hours talking about the countless contributions of this philosopher and scientist who is so important to Linguistics. Time limitations, however, do not allow me to do so. Nevertheless, I would like to say a few words that, in my opinion, deserve to be highlighted, particularly in this time.

In the 1960s, Noam Chomsky developed a theory to explain the rise of human language, one of the greatest mysteries of humankind. As a geologist, I will not dare to speak of such theory, but I note that his proposals sparked off a new way of doing Linguistics and broke paradigms in this field. Mr. Chomsky's contributions, both as a linguist and as a cognitive scientist, have influenced researchers around the world. At UnB, his ideas played a pivotal role in the development of research programs, especially at the Institute of Letters. But certainly his ideas are also discussed in Psychology and Biology studies, as well as in research related to the development of language and human evolution.

The proposal of innovative ideas, of different ways to look at old and current problems, is one of the missions of scientific inquiry and, therefore, of human knowledge. Mr. Chomsky is an expression of this view, but he goes further, much further. Our guest, now UnB's Doctor *Honoris Causa*, went beyond his field of expertise. From his early academic years, Noam Chomsky perceived and defended the idea that intellectuals need to get out of their "bubbles" and share knowledge and

the truth. In short, just as important as doing science is talking about science, as a way of shedding light into darkness.

Mr. Chomsky's historic role in world politics, with analyses of American domestic and foreign policy and the anticipation of major international problems, has also been impactful on researchers worldwide—particularly in the humanities and the social sciences. Mr. Chomsky became a notable activist, an analyst of our times and of the deleterious effects of a global policy that systematically crushes people for profit.

This contribution is even more evident today, with the uncertainties brought about by the pandemic. And it goes even further: our current situation leads us back to questions already posed by Noam Chomsky. After all, the outbreak of this disease, still not fully understood, occurred because of our current lifestyle. Our culture—so busy maximizing things—must refocus on the urgency of the climate crisis, on a more sustainable future, and on solidarity with the Planet and other human beings.

We are proud to say that we have among our Honorary Doctors one of the greatest minds of our time.

A lifetime dedicated to Linguistics and Politics

Rozana Reigota Naves

Director of the Institute of Letters

University of Brasilia

With respect and admiration, we welcome Professor Noam Chomsky, our honoree and our reference in Linguistics—since I am myself part of the Generative research group at the University of Brasilia.

The idea for granting this honorary title was conceived at the Institute of Letters as a way to celebrate the milestone of 100 dissertations and theses defended under the theoretical framework of Generative Grammar, a mark achieved by our Graduate Program in Linguistics.

This milestone is the result of the work initiated by the late Lucia Lobato, a professor who passed away in 2005. Lucia pioneered generative research at UnB in the late 1970s. She was also responsible for Professor Noam Chomsky's visit to this University 24 years ago, thus promoting UnB in the national and international scene.

Today we are a group of seven faculty members who actively work for the scientific advancement of generative

research. We belong to a global network of researchers who collaboratively work on understanding linguistic phenomena from the perspective of internalized grammatical knowledge.

Even beyond Linguistics, Noam Chomsky is our reference in the field of politics—and I say “our reference” here in a much broader sense.

Mr. Chomsky's analysis of world politics, his criticism of American foreign policies and authoritarian governments, as well as his libertarian socialist ideal, drive us to defend those who are exploited by an economic system that oppresses and kills people. It encourages us to passionately defend democracy and science as indispensable platforms for overcoming environmental, economic, political and social crises worsened by the pandemic.

In the excerpt *Writers and Intellectual Responsibility*, Mr. Chomsky argues that any good professor, writer or intellectual should not be speaking *to*, but *with* “an audience that matters—and furthermore, it should not be seen as an audience, but as a community of common concern in which hopes to participate constructively”.

Today the University of Brasilia is this audience. A community of 45,000 predominantly young undergraduate and graduate students, faculty and staff. We place on them our hope for a country, and a world, of peace and social justice. A world in which all human beings can thrive free of prejudice of any kind.

As we grant this title of Doctor *Honoris Causa* to professor Noam Chomsky, in recognition of his scientifically and politically active journey, we feel grateful and honored

to have him here with us and to speak with him. I am certain that your message will intensify our common concerns for the great causes of humanity, because a title of this nature is not only conferred to the man only, but, above all, to the causes that he represents.

Chomsky: a member of our community

Heloisa Maria M. Lima Salles

Associate Professor at the Linguistics Department
Institute of Letters – University of Brasilia

Before going into the words to honor the prestigious career of Noam Chomsky, I would like to have permission to say a few words about this House, which is granting the title of Doctor *Honoris Causa* to our guest.

The History of the University of Brasilia is confounded with that of the city of Brasilia, Brazil's capital. Like Brasilia, this University has been founded under the sign of hope, bravery and utopia through the hands of its founder, Juscelino Kubitschek de Oliveira.

Each of these signs, in turn, embraces various attributes that constitute the Brazilian people, who was created in the amalgamation of nations, in the search for a place under the sun, in the hope for peace.

The University of Brasilia originates from the unification of these values, exactly as our capital, Brasilia.

Brasilia was intended to project a new conception of society in order to translate Dom João Bosco's dream. A dream

in which he envisaged the rise of a civilization between the parallels 15 and 20, in South America, from where milk and honey would flow....

Essentially, his dream expressed the original pursuit of humankind: a search for the pleasure of nourishment, to which everyone should be entitled, from which peace of mind is attained, on which creation and knowledge arise, bringing about the revolutionary products of innovation for the benefit of future generations.

These signs were embraced by courageous men and women who engaged themselves in building Brasilia at the heart of the continent, in the remote solitudes of this land, giving shape to an original and revolutionary project.

Within this ambitious project, the creation of the University of Brasilia was undertaken by two notable educators, Darcy Ribeiro and Anísio Teixeira. The understanding was that the University was a necessity, having as its mission the promotion of knowledge, culture and arts, in a constant dialogue with basic public education and the demands of our society.

The connection to basic education was grounded on projects led by an experimental school linked to the Education Department—and the work of educator Teresinha Rosa Cruz deserves mention.

It is to this vivid moment that we would like to tie our invitation to Professor Noam Chomsky, to come to our House, and to become a member of its community through the title of Doctor *Honoris Causa*.

As is well-known, the years that followed the creation of UnB were suffocated by the Dictatorship that hit us... and,

at this point, I would like to render honor to all of our brave professors and students who resisted the violence and in some cases died in defense of a cause. I mention the name of three of our students, from the Truth Commission Report of the University of Brasilia, Paulo de Tarso Celestino da Silva, Honestino Monteiro Guimarães, and Ieda Santos Delgado.

As I said, we would like to greet his public personality, his intelligence, and his significant contribution to Science, and to Linguistics, his political engagement in promoting awareness of economic oppression in contemporary society and in defense of people's sovereignty. We bring him closer to that part of our History in which we, Brazilians, and the community of the University of Brasilia, in particular, were engaged in the pursuit of a dream. The dream of emancipation from the violent effects of social injustice, by means of our own efforts, beliefs and talents...

In fact, this dream has never been suffocated... many years later, it remains at the heart of our community, in the competent professional performance of professors and technicians, in our students' enthusiastic souls and minds!

Having Professor Noam Chomsky in our company is a true honor, and a great sign of support to our enduring search for better days for Brazilian people, particularly during this pandemic, with all these losses and all this suffering.

It is now time to qualify the presence of our laureate among us.

Among the enormous contributions of Noam Chomsky as an intellectual of our days, I will concentrate on that of the linguist.

Noam Chomsky has founded a field in Linguistics. His critical mind was responsible for reopening the long-lasting debate referred to as *nature or nurture* in Linguistics. The publication, in 1959, of a review of Skinner's (1957) paper *Verbal Behavior* was a hallmark in the foundation of the so-called area of Generative Linguistics, also known as Biolinguistics.

Noting that a well-established theory of the environmental variables as a determining cause of verbal behavior was not available in the Skinnerean project, and that grammar is a fundamental component of language use, Noam Chomsky, then a young scientist, proposed a research agenda grounded on the assumption that a language's ability to generate sentences is determined by an innate component of the mind—the Language Faculty—speaking against the mainstream of theoretical Linguistics, in particular that of the American structuralism, strongly influenced by behaviorism.

As such, one task was to determine the core evolutionary property that gave rise to language—a fascinating human attribute. That property, a crucial event in the species evolution.

Another task was to account for language acquisition. Given the richness and complexity of the acquired language and the limited character of language experience in acquisition (the so-called poverty of stimulus argument—an argument that was recently qualified with conclusive evidence by Charles Yang), the hypothesis was then that the final state of internal language was triggered by the innate properties of the Language Faculty, the specialized organ in the biological endowment of humans for the development of linguistic knowledge.

Mr. Chomsky's research agenda gathered a number of

collaborators around him at the Massachusetts Institute of Technology in the USA and worldwide—including Brazil, and, in particular, the University of Brasilia, under the leadership of the prominent linguist Lucia Lobato. The impact of his work and that of his collaborators spread out, and an expected controversy provoked important debates, such as the one between Chomsky and Piaget, held in 1975¹.

That was part of the so-called Second Cognitive Revolution, which in turn founded the “mind’s new science”, as appropriately coined by Howard Gardner in his notable book².

In 1996, Noam Chomsky gently accepted Lucia Lobato’s invitation to come to our University to give two influential talks, which were later published by the University of Brasilia under the title *Language and Mind* (“Linguagem e Mente”).

In fact, there is a tradition behind this agenda that was inaugurated with Plato’s philosophical inquietudes concerning the origin and nature of knowledge. Plato concluded that there was more to knowledge than experience would provide. This tradition is also supported by the fundamental questions later posed by Galileo and his contemporaries concerning simple facts, language included. And now I quote Mr. Chomsky, who refers to Galileo in the book *On Nature and Language* as “the master who does not disappoint us”: “Galileo may have been the first to recognize clearly the significance of the core

1 The debate was published in the book titled *Théories du Language. Théories de l’Apprentissage*, by Editions Seuil. The Portuguese edition, “*Teorias da Linguagem e Teorias da Aprendizagem*”, was translated by Jorge Machado Dias, and published by Edições 70, Lisboa, 1978.

2 *The Mind’s New Science. A History of the Cognitive Science*. Basic Books, New York, 1985.

property of human language, and one of its most distinctive properties: the use of finite means to express an unlimited array of thoughts” (excerpt from *On Nature and Language*, 2002, p. 45).³

From Galileo’s contribution, a rationalist trend of investigation is inaugurated in which language is taken as a source and a shaper of thoughts. As observed by Descartes (quoted in Chomsky, 2002), the products of introspective activities of thinking are adequate to the occasions, but not caused by them. This conclusion is aligned with the concept of free will, still in Descartes’s terms, “the noblest thing we can have”, thus implying the independence of language from the context, and consequently from communication (possibly including its evolutionary development), contra a long-lasting tradition in Linguistics and other fields.

This point was crucial in determining the rationalist perspective of the generative enterprise, and was brilliantly explained by Professor Lucia Lobato in a conference presented at the Biology Institute of the University of Brasilia, in 2004, under the invitation of the venerable Professor Waldenor Barbosa Cruz, with the participation of the equally prominent Professor Eunice Soriano, from the Psychology Institute.

In Lobato’s words:

The independence from stimuli and the consequent freedom of self-expression come from the fact that the messages in languages do not constitute

3 CHOMSKY, Noam. *On nature and language*. Cambridge: Cambridge University Press, 2002.

a type of performance in direct reaction to a given situation or an internal state. An intermediate computational system is in place, mediating this situation and the produced message. The parity of thoughts leads to the conclusion that the computational system interpreting the messages is basically the same as the one producing them, but with a different orientation. The liberty to choose the social function of language, but not the cognitive one, points to the precedence of the latter with respect to the former. In turn, the perspective of choosing a social function shows that languages have a social function that exceeds the limits of the simple survival necessities (LOBATO, 2004, p. 37).⁴

As proposed in the Chomskyan approach, and now we reach the contribution of our laureate in its most recent formulation, the Language Faculty (and the internal-Language arising from the exposure of an individual to the primary linguistic data in the process of language acquisition, that is, the mature state of the FL) is a recursive procedure that generates an infinity of expressions. These expressions are collections of information that are used as instructions for the systems of the mind-brain, namely the sensorimotor systems and conceptual-intentional systems—“the latter systems of thoughts” (CHOMSKY, 2002, p. 87). In this context, a new path is open for the development of the so-called Minimalist

4 In PILATI, Eloisa N. Silva. et al. (Orgs.). *Linguística e Ensino de línguas. Coleção Lucia Lobato. v. 2.* Brasília, Editora Universidade de Brasília, 2015.

Program, which is now guided by a question known as the Strong Minimalist Thesis: “Could it be that FL is an optional solution to interface conditions imposed by the systems of the mind-brain in which it is embedded, the sensorimotor and thought systems?” (*op. cit.*, p. 90)

In addressing this question very recently during a live streaming promoted by the Brazilian Association of Linguistics (ABRALIN), and already published in the first number of its publication *Cadernos de Linguística*, Noam Chomsky has mentioned that the general architecture of the Language Faculty includes a narrow syntax, an stable property generating structures for the systems of thoughts, and an externalization procedure, which can, but does not have to, map them to the sensorimotor systems. Moreover, he adds, the internal language seems not to include externalization. As an unstable and complex mapping, externalization is “the primary locus of apparent language complexity, diversity and change”.

These (new) ideas are revolutionary in various senses and go back to the original relation between language and thought. As pointed out by Noam Chomsky, under this view, communication is even more distant from the essential nature of language, and from the evolutionary process triggering it—in particular, from the idea that it evolved from the systems of animal communication.

In turn, narrow syntax comes down to Merge, a binary and structured operation, which drives all syntactic operations, allowing a parallel with other cognitive phenomena. These ideas are originally presented in a very influential paper entitled *The Faculty of Language: what is it, who has it, and how*

did it evolve, published in 2002, in *Science*, by Marc Hauser, Noam Chomsky and Tecumseh Fitch, who suggest that “current developments in linguistics can be profitably wedded to work in evolutionary biology, anthropology, psychology, and neuroscience” (HAUSER, CHOMSKY, FITCH, 2002, p. 1).

Under this view, the operation Merge may be of two types: external, which combines distinct elements in a workspace (thus creating head-complement relations, thematic structures), and internal, which extends to structures under dislocation/movement, without affecting the interpretation of its components, thus implying no impact at the conceptual-intentional (C-I) interface. As a basic property, dislocation is expected and ubiquitous, expressing successive functions, as in arithmetic. External Merge, in turn, is what needs to be explained, the internal language proper.

Additional evidence comes from structural dependency, which is widely observed in the languages of the world, also confirmed in experiments with children. As noted by Noam Chomsky: they are exposed to the linear chain (or to the visual chain, in the case of deaf children), and respond to what they do not see: the structure.

Much more could be said to acknowledge and honor the influential work of Noam Chomsky in Linguistics and in other fields. We should praise not only his brilliant and definitive contribution to the advancement of Science, but also his example of dedication, generosity, and intellectual honesty in exerting the leadership of this research program, and surely of a number of linguists who have been engaged in understanding the nature, origins and use of language—a

monumental task that will certainly “tell us about the type of creatures we are”, to use his own terms, and possibly help us in finding a way out of social injustice in our societies, feeding our spirit with hope and Faith in humanity.

Doctor *Honoris Causa* Acceptance Speech by Professor Noam Chomsky, University of Brasilia

Noam Chomsky

Institute Professor & Professor of
Linguistics emeritus at MIT
Laureate Professor of Linguistics at
the University of Arizona

I need hardly say that it is a great pleasure to receive this high honor, particularly from the outstanding department of linguistics at the university.

I had the very welcome opportunity to visit the department 25 years ago at the invitation of my friend and colleague, the late Lucia Lobato, and to give a few talks that were something of a turning point for me. The talks reviewed recent and current work, but then went on to offer some speculations about what might lie on the horizon in the study of language and mind.

The speculations seemed extreme at the time, if not outlandish—as many international commentators felt. But pursuing them turned out to be very fruitful, not just for me

but for many linguists who joined in these efforts, including a growing number of Brazilian linguists who went on to make very valuable contributions to ongoing research. Professor Lobato's department here has had a large role in the impressive development of Brazilian linguistics in recent years, becoming a significant component of a flourishing discipline worldwide. Brazil is particularly well-placed to lead the way in such studies, with its established cultural institutions and its unparalleled resources of indigenous communities, each with its rich contribution of linguistic variety and cultural wealth—now severely threatened, even at risk of survival.

It is tempting to proceed to discuss some of the surprising results that have been established in recent years, and once again to speculate on what might lie ahead. What might lie ahead, that is, if the conditions for productive inquiry are sustained.

Regrettably, we are at a moment in history in which those prospects are not secure in much of the world. Those endangered include the Colossus of the North, as the United States has long been called. They also include the Colossus of the South, the term used a century ago to refer to Brazil in the light of its enormous human and material resources and the prospects for its cultural and material development.

There are, however, serious impediments to moving forward to a more civilized world, and with it, a flourishing educational and research environment, the two closely interlinked. The scale of contemporary disorders is reflected in an important report just released by the prestigious Social Progress Imperative, their 2020 review of social justice and

welfare during the past decade in 163 countries.⁵

The report finds that there has been slow and uneven progress everywhere, with three startling exceptions, which have declined: the United States, Brazil, and Hungary—the last now suffering under the autocratic rule of Viktor Orban.

The studies were carried out before the pandemic struck. Its impact provides its own evidence about the outliers in international society. In ranking of number of cases and deaths from Covid-19, the top three are the United States, Brazil, and India, far above all others. For the US and Brazil, well beyond their proportion of the global population. The US has 4% of the world's population, over 25% of cases. For Brazil the figures are similar.

The pre-pandemic Social Progress Index shows that the United States has dropped from 19th place a decade ago to 28th today, despite its enormous wealth and power and unique advantages. Brazil has dropped to 61st. The US is now ranked below much poorer countries such as Estonia and Greece.

More specific measures are highly informative. The US is well in the lead internationally in medical technology, but it is ranked 97th in access to quality health care, with health statistics similar to Albania, Jordan, and Chile.

The figures for education are particularly relevant to our immediate concerns here. The US ranks first in quality of universities, but 91st in access to quality basic education. For children, access is on a par with Mongolia and Uzbekistan.

5 2020 Social Progress Index: <https://www.socialprogress.org>. 'We're No. 28! And dropping!': <https://www.nytimes.com/2020/09/09/opinion/united-states-social-progress.html>.

These figures reflect serious social malaise. There are many factors, but one salient one stands out: the impact of 40 years of neoliberal policies ever since Ronald Reagan and Margaret Thatcher proclaimed the new doctrines. “Government is the problem”, Reagan declared in his inaugural address 40 years ago: decisions must be shifted from governments, which are partly under public influence, to private power that is completely unaccountable to the public. Furthermore, under the doctrines that are being imposed, it is a matter of fundamental principle that private power must have no concern for the public interest. It must be committed solely to self-enrichment, so the leading economist of the movement, Milton Friedman, instructed the world as the campaign began. Thatcher added that “there is no society”, only individuals, cast into the market to survive as best they can in a cruel world of increasingly concentrated power.

Unwittingly, no doubt, Thatcher was paraphrasing Karl Marx, who condemned the autocratic rulers of his day for turning society into “a sack of potatoes”, isolated individuals, defenseless against concentrated power.

The consequences come as little surprise: bitterness, anger, resentment, contempt for institutions over much of the world. These understandable reactions provide fertile territory for demagogues who can pretend to be your savior while stabbing you the back, blaming scapegoats for your plight—blacks, immigrants, China, whatever evokes ancient prejudices—and meanwhile carefully shielding the powerful forces who are actually responsible and whom the demagogue loyally serves. Not hard to find examples.

It is worth taking a moment to review briefly the economic history of the West since World War II. There have been two clearly distinct periods, with the break about 40 years ago. The first is the period of so-called “regimented capitalism” from the end of the war into the 1970s. The second is the neoliberal era that took off under Reagan and Thatcher, with others following.

The period of regimented capitalism is often called by economists “the golden age” of capitalism. Growth was unusually high, and it was egalitarian growth. Wages tracked productivity. Financial institutions were limited and tightly controlled. There were no major financial crashes.

The neoliberal reaction reversed all of that. Economic growth continued, but more slowly. The wealth that was produced flowed into very few pockets. Wages were decoupled from productivity, and flattened. The most authoritative current study, from the Rand Corporation, estimates the loss of income to the lower 90% of the population to be \$47 trillion; a trillion dollars a year stolen from working people and the middle class. That is in addition to the tens of trillions stolen from the public by pouring capital into tax havens once Reagan authorized these practices in the name of “liberty”. Previously they had been banned and the laws were enforced. Financial institutions exploded in scale, becoming the dominant part of the economy, causing regular crises thanks to the predatory practices authorized by deregulation, followed by taxpayer bailouts for the perpetrators that are in fact only a part of the massive state subsidy they receive.

In the United States, which led the neoliberal onslaught,

by now 0.1% of the population have 20% of the wealth, twice what they had when Reagan was elected. A majority of the population survives from paycheck to paycheck, with almost no reserves. So-called “free markets” led to monopolization, with reduced competition and innovation, as the strong swallowed the weak.

Reagan and Thatcher moved at once to destroy labor unions, recognizing that they are the primary means of defense for working people against concentrated capital. In doing so, they were adopting the leading principles of neoliberalism from its early days in interwar Vienna, where the founder and patron saint of the movement, Ludwig von Mises, was overjoyed when the proto-fascist government violently destroyed Austria’s vibrant social democracy and the unions that were interfering with sound economics by defending the rights of working people. As he explained in his 1927 neoliberal classic *Liberalism*, five years after Mussolini initiated his brutal rule, “It cannot be denied that Fascism and similar movements aimed at the establishment of dictatorships are full of the best intentions and that their intervention has for the moment saved European civilization. The merit that Fascism has thereby won for itself will live on eternally in history”—though it will be only temporary, he assured us. The Blackshirts will go home after having accomplished their good work.

The same principles inspired enthusiastic neoliberal support for the hideous Pinochet dictatorship. A few years later, they were put into operation in a different form in the global arena under the leadership of the US and UK. And they are hardly unfamiliar elsewhere.

It is worth remembering the lessons of the past century. One of the most striking and consistent is that neoliberalism, with its cry for “liberty”, is perfectly compatible with harsh repression and violence by a powerful state. We should bear that in mind as we move into a new post-pandemic era, something I will return to.

Educational systems were not spared under the neoliberal reaction, as illustrated by the figures I cited earlier for the United States. To repeat, the United States still ranks first in quality of universities, but it ranks 91st in general access to quality basic education. For children, access is on a par with Mongolia and Uzbekistan. Those numbers, duplicated for health care and other domains of the common good, bring out the essence of the neoliberal assault with glaring clarity.

US elite universities have managed to resist the neoliberal assault, and remain the best in the world. The rest of the system has suffered. Mass public education from the 19th century was one of the great contributions of the United States to modern civilization. No longer. Under neoliberal principles public education is under sharp attack. Since “government is the problem” and “there is no society” according to neoliberal doctrine, government funding for schools has sharply declined, from kindergarten to the great state college system established from the 19th century, unique in the world in quality and scale. The Trump administration Secretary of Education, multimillionaire Betsy DeVos, is quite openly committed to replacing public education by private and religious schools.

Public education must not only be reduced or even eliminated. It must also be stifled. The progressive and highly

successful ideas of great educators from Wilhelm von Humboldt, the great classical liberal humanist who founded the modern research university, must be abandoned, along with the contributions of the inheritors of the classical liberal and humanist traditions, such outstanding modern figures as John Dewey and Paulo Freire. It is important to suppress the ideas that inspired the creation of this great university, the vision of Darcy Ribeiro and Anísio Teixeira, leading figures of modern culture. We must abandon the goals of intellectual and cultural enrichment, cooperative effort, diversity and inclusiveness, stimulating creative and independent thought. Those humanistic ideals and guidelines have been replaced by a business model that imposes discipline, conformity, concern for oneself.

The new model was in fact considered by Enlightenment thinkers and classical liberals. They ridiculed it as similar to pouring water into a vessel, and a very leaky one as all of us have experienced.

Under the business model, faculty are replaced by temporary workers—low-paid adjuncts and graduate students, vulnerable and defenseless. Neoliberal governments favor training a pliable and obedient workforce. They prefer to cast aside those parts of the educational system that merely contribute to cultural wealth and that honor the dictate of the Delphic Oracle 2500 years ago: “know thyself.” We should not waste time trying to explore and unravel the mysteries of human nature, the deep properties that distinguish humans so sharply from the rest of the natural world, not always to its benefit, as we witness with horror right now, but with reserves

of creativity, compassion, and talent that can be nourished and marshalled to overcome today's existential crises.

The Oracle called on us to "know thyself", which requires further that we go on to try to understand the social world in which we live and in which we should participate actively as informed and educated citizens. All of this is to be cast aside under the neoliberal model of business rule, self-enrichment for the powerful, and struggle for bare survival for the majority, with its immediate corollaries for the educational system.

Why, after all, should young people waste their time learning about the history of their own societies and the world, or coming to appreciate and to contribute to the rich legacy of the arts and humanities, or to explore the cultural wealth of very different societies? That does not enhance profit for the few, and worse, it might subvert authority, the way Socrates did by raising too many questions and encouraging independent thought in ancient Athens. His subversive efforts were terminated by the hemlock. Today we can just excise the offending parts of the educational system. We need not murder Socrates. It is enough to eliminate the philosophy department.

In fact, why do young people even have to have a deep understanding of mathematics and the sciences and to wonder at their remarkable achievements, when they can just memorize tools that can contribute to profit in the market?

This is, unfortunately, no caricature. Recently the Tory government in England urged departments like classics at Oxford to justify their existence in terms of market value. Social and educational critic Stefan Collini commented aptly

that they want to turn first-class educational institutions into third rate commercial enterprises.

The sciences are not immune. The shift from government-funded to corporate-funded research during the neo-liberal years has brought with it more close supervision and focus on short-term applied goals that might be profitable for the funder but should be kept from others and the general public. These doctrines are reaching the level of an enormous humanitarian crisis today with the race to vaccines and the subordination of government policy to the monopoly rights accorded to pharmaceutical corporations under the neoliberal investor rights agreements, masquerading under the slogan of “free trade”.

The shift to corporate funding during the neoliberal years has also brought secrecy to the top research universities for the first time, sometimes to the level of scandals that reach the press. A few years ago the Wall Street Journal reported a case where a student refused to answer a question on an exam because he was working with another professor under a corporate-imposed pledge of secrecy. That happened to be at my own university, MIT, the Massachusetts Institute of Technology, one of the world’s leading research universities. Nothing like that was imaginable under government funding, including the massive funding of research universities, like my own, through the funnel of the Pentagon, a common device of state support of public projects from advanced research to the arts and humanities, to the interstate highway system. Corporate funding is, by its nature, very different, as is the business model generally.

I have spent most of my professional life, over 60 years, at MIT. It has provided a front row seat for the processes that have taken place as the economy shifted from the regimented state capitalism of the “golden age” to the business-run neoliberal model. I don’t want to exaggerate. As I mentioned, the elite universities have been about to resist the neoliberal assault on the integrity and mission of the cultural and scientific institutions. But they have not been totally immune, and as throughout the society, it has been hard work to resist the neoliberal wrecking ball. Those familiar with the main scientific journals have plenty of evidence about this from regular editorials protesting government interference with scientific work in recent years, if not from direct experience.

What has taken place in the educational institutions tracks rather closely the shifts in the socioeconomic order. During the “golden age”, the government played a major role in shaping educational policy and the economy, but indirectly. Huge numbers of people who would never have been able to go to college were provided with free tuition and subsidy through the GI Bill of Rights, greatly to their benefit and to the benefit of the country—even though it was racist and sexist, limited to veteran of the segregated armed forces. Funding for colleges and universities was greatly expanded.

When I arrived 70 years ago, MIT was an engineering school. Under the impact of the greatly expanded government programs, it changed to a university based on science. Incoming students and faculty, more oriented towards science, wanted a much broader education. New departments appeared in linguistics, philosophy, psychology, anthropology, music

and the arts, the humanities and social sciences generally. That greatly enriched the general intellectual and cultural environment, and as result, also enriched scientific work and engineering achievement, with enhanced creativity and exploration. The Research Laboratory of Electronics, where I was in those years, became one of major centers for the development of today's high-tech economy: computers, the Internet, microelectronics, satellites, the rest of the modern advanced economy. They were mostly developed in public institutions, years later handed over to private enterprise for adaptation to the market and profits—the system of public subsidy, private profit that is called “capitalism” in modern usage.

The science-based university of the 1970s was very different from the engineering school 20 years earlier. And it has been able to largely resist the neoliberal counter-attack that seeks to convert first class universities to third class commercial institutions, to borrow Collini's phrase about the programs of Tory in England. Less privileged sectors have been forced to succumb, with effects of the kind I have mentioned.

This is not ancient history. It provides lessons for all of us today, within the educational system and in the larger society.

We are now in the midst of a raging pandemic. It was avoidable. It can be contained, as has been demonstrated in countries where the government is concerned for its citizens, most clearly in East and Southeast Asia and Oceania, later in most of Europe as well, though there are outliers, notably the US and Brazil. We will sooner or later emerge from the pan-

demic, at terrible and mostly needless cost. A new world will emerge. Its contours are now unclear, and sharply contested.

Those who have created the social order that underlies current crises, and have greatly benefited from it, are working relentlessly to ensure that it is perpetuated, and in a harsher form, with greater government surveillance and control. And we should remember that for a century, neoliberal doctrine and practice has enthusiastically supported state violence and repression, in the name of “liberty” for the few. That is one possible outcome, beginning to take shape before our eyes.

Another possible outcome has been spelled out this past weekend in Iceland, where the Prime Minister hosted the first meeting of the Progressive International. This global initiative is based on the highly successful movement led by Bernie Sanders in the US and its European counterpart, DiEM 25, initiated by Yanis Varoufakis, a transnational effort seeking to maintain and improve what is of value in the European Union and to overcome its severe flaws. It includes participants from the Global South—and Brazilians may recall that a few years ago Brazil was the leading voice of the Global South and perhaps the most respected country in the international arena. And could be again.

The two contending forces have very different images of the world that should be forged in the new era. Which one will prevail will have enormous consequences, not least for our corner of the world, cultural and educational institutions. The stakes, however, are far larger. It is no exaggeration to say that the outcome will determine the fate of the human experiment on Earth.

We have the means to overcome the crises that humanity faces. The means are feasible, they are within reach. But it is not enough to know. It is necessary to act. That is the imminent challenge, for all of us.

This book is set in UnB Pro.