

In the new category of Humanities and Social Sciences

The BBVA Foundation recognizes Noam Chomsky for his “unparalleled” contributions to the study of human language

- The committee considers that the U.S. linguist has transformed the study of the human mind and the cognitive systems that comprise it with his seminal investigations into the grammar that underlies all spoken languages
- In a series of pioneering studies from the late 1950s into the 1980s, Chomsky showed that language acquisition relies on an innate faculty of the human mind that enables us to understand and generate sentences based on the formal rules of “universal grammar”
- His extensive body of work has opened up new research paths in multiple fields of humanities and science, from theoretical linguistics, psycholinguistics and cognitive science to the philosophy of language and diverse branches of psychology
- Chomsky's achievement, the citation states, has been to make “humanity's most distinctive cognitive product understandable from both a scientific and humanistic point of view”

Madrid, 16 April, 2019.- The BBVA Foundation Frontiers of Knowledge Award in the Humanities and Social Sciences category has gone in this eleventh edition to Noam Chomsky “for his unparalleled contributions to the study of human language,” in the words of the award committee. It was in the late 1950s that Chomsky proposed that the human brain possesses an innate, pre-programmed knowledge enabling it to learn and develop language; a groundbreaking and now commonly accepted theory whose implications have set the agenda for new research efforts in diverse fields of science and the humanities.

In their eleventh edition, the BBVA Foundation's Frontiers of Knowledge Awards, distinguishing world-class scientific research and cultural creation, have incorporated the new category of Humanities and Social Sciences, to alternate annually between the two domains. This first award is devoted to the humanities.

Chomsky, says the committee, set the study of the human mind “on a new and productive path encompassing theoretical linguistics, psycholinguistics, cognitive science, the philosophies of language and mind, and cognitive psychology.”

Through his view of language as something the human mind is innately able to produce by calling on predefined structures, Chomsky made “humanity’s most distinctive cognitive product understandable from both a scientific and humanistic point of view,” the citation continues. Language thus becomes not just an instrument of communication, but a cognitive-biological object born out of the human mind, and therefore providing a window onto the workings of the human brain.

“For centuries language was considered a strictly social phenomenon,” explains Ignacio Bosque, the Professor of Spanish at the Universidad Complutense de Madrid and member of the Real Academia Española who nominated Chomsky for the Frontiers of Knowledge Award. “Chomsky’s fundamental insight was to develop a theory of language as being built into the human cognitive system, an approach that allows it to be studied as part of the natural world.” Although Chomskyan theory posits a general, abstract model of the structure of human languages, this model that has informed detailed studies of the formal properties of many individual languages, fueling the rise of the new comparative linguistics and laying the foundations for a scientific understanding of language learning and development.

Chomsky is currently an emeritus professor at the Massachusetts Institute of Technology (MIT) and laureate professor at the University of Arizona. His first book, *Syntactic Structures*, published in 1957 when he was just 29 years old, is a technical treatise on linguistics based on the lecture notes he had prepared for his students. It is here that Chomsky introduces the concept of generative grammar: the idea that the grammatical rules of all languages spring from a universal grammar that is innate to the human brain.

“The linguistic universals Chomsky studied are formal in nature,” Professor Bosque continues. “Words are grouped in certain ways into segments nested within other, larger ones. Although human languages differ enormously, on the surface at least, the relationships between these segments are constant, and are also sensitive to their internal constitution.”

These postulates clashed full-on with the accepted wisdom of the time, and were initially rejected by the linguistic establishment. Chomsky, however, revealed the holes in the fabric through examples like his famous sentence “Colorless green ideas sleep furiously,” a construction we recognize as grammatically correct even though it makes no sense. For Chomsky, this proved that the ability to recognize that a sentence is formally correct draws on the principles of an innate, universal grammar.

Despite the initial skepticism, this first publication and those that followed would mark a programmatic shift in the study of language, moving it into the terrains of psychology and biology. Chomsky’s books of the 1960s and 1970s – and

subsequent reeditions – are among the most highly cited in the humanities, and viewed as the wellspring of such brand new disciplines as psycholinguistics. “Numerous studies on the acquisition of first and second languages would never have been possible without Chomsky’s ideas as their starting point,” insists Bosque, “and many of the questions they pose could never have been formulated. We could go as far as to say that the very idea of creativity has had to be radically revised in the light of Chomsky’s work.”

How to explain the rapid acquisition of language

One problem for which Chomsky’s theory provides a better fit than any other is the speed with which language is acquired. Between the ages of two and eight, children are reckoned to learn one new term every waking hour. In the first half of the 20th century, behaviorist theory explained this learning curve as a process of trial and error in which children acquire their mother tongue by repeating what they hear and correcting their mistakes. But Chomsky thought differently. For him, a mere stimulus-response could not account for children’s ability to come up with entirely new sentences. The capacity to produce an infinite number of structures – sentences – out of a finite number of elements – words – implies that the human brain comes prewired with the rules of universal grammar that underlie each language, so the learning process is not confined to a child repeating what is said by other speakers.

“The fact that any speaker can construct expressions that have never been uttered, and understand others they have never heard cannot be a mere product of imitation,” says Bosque. “We humans possess a language faculty that rests on linguistic principles of considerable complexity, a kind of template into which any human language fits. And Chomsky has studied the structure of this template in painstaking detail for more than seventy years.”

Chomsky has set out his linguistic postulates and theories on the relationship between language and brain function – what the committee calls his scientific program – in some of the all-time highest cited publications in the humanities area; among them, *Aspects of a Theory of Syntax* (1965), *Lectures on Government and Binding* (1981) and *The Minimalist Program* (1992).

“Some wonder why Chomsky has focused on humans’ cognitive abilities rather than the set of social and cultural factors that govern their existence. I would argue that it is precisely this choice that evidences the sheer originality of his thought and the extraordinary reach of his contributions,” concludes Ignacio Bosque.

Academic biography

Noam Chomsky (1928, Philadelphia, United States) earned a PhD in Linguistics from the University of Pennsylvania in 1955, though he completed most of his doctoral research at Harvard University. That same year, he joined the faculty at the Massachusetts Institute of Technology (MIT), being appointed full professor in the Department of Linguistics and Philosophy in 1961. From 1966 to 1976 he held

the Ferrari P. Ward Professorship of Modern Languages and Linguistics, and in 1976 was appointed Institute Professor. He stepped into an emeritus role at this same institution in 2002.

In 2017, he took up a post at the University of Arizona, where he is currently Laureate Professor and holder of the Agnese Nelms Haury Chair.

Chomsky has written more than one hundred books, notably *The Logical Structure of Linguistic Theory*, *Syntactic Structures*, *Aspects of a Theory of Syntax and Language and Mind*, and is one of the most cited authors in modern history.

He is a member of the American Academy of Arts and Sciences and the U.S. National Academy of Sciences.

Humanities and Social Sciences committee and evaluation support panel

The rigor, quality and independence of the judging process have earned these awards the attention of the international scientific community and a firm place among the world's foremost prize families.

The jury in this category was chaired by **Scott Soames**, Distinguished Professor in the Department of Philosophy at the University of Southern California (United States), with **Mauricio Suárez**, Professor in Logic and Philosophy of Science at the Universidad Complutense de Madrid (Spain) acting as secretary. Remaining members were **Dieter Birnbacher**, Emeritus Professor in the Department of Philosophy at Heinrich Heine University Düsseldorf (Germany); **Isabel Burdiel**, Professor of History at the University of Valencia (Spain); **Christian Illies**, Chair of Philosophy at Otto-Friedrich University Bamberg (Germany); and **Stephen Mumford**, Professor of Metaphysics in the Department of Philosophy at Durham University (United Kingdom).

The BBVA Foundation is aided in the evaluation process by the Spanish National Research Council (CSIC), the country's premier public research organization. The Foundation and CSIC jointly appoint the evaluation support panels charged with undertaking an initial assessment of the candidates proposed by institutions across the world and drawing up a reasoned shortlist for the consideration of the award committees.

The **CSIC evaluation support panel** in this category was coordinated by **María Victoria Moreno**, the Council's Deputy Vice President for Scientific and Technical Areas, and formed by: **José Antonio Berenguer**, Coordinator of the Humanities and Social Sciences Area and scientific researcher at the Institute of Languages and Cultures of the Mediterranean and the Near East (ILC); **Miguel Ángel Bunes Ibarra**, a research professor at the History Institute (IH); **Ernesto Ganuza**, a tenured researcher at the Institute for Advanced Social Studies (IESA); **Ana María López**, a tenured researcher at the Institute of Economics, Geography and Demography (IEGD); and **Ignacio Márquez**, tenured researcher at the Institute of Languages and Cultures of the Mediterranean and the Near East (ILC).

About the BBVA Foundation Frontiers of Knowledge Awards

The BBVA Foundation centers its activity on the promotion of world-class scientific research and cultural creation, and the encouragement of talent.

The BBVA Foundation Frontiers of Knowledge Awards, established in 2008, recognize and reward contributions of singular impact in science, art and the humanities, privileging achievements that significantly expand the frontiers of the known world, open up new fields, or emerge from the interaction of various disciplinary areas. Their eight categories are congruent with the knowledge map of the 21st century, ranging from basic sciences to key challenges for the natural environment by way of domains at the crossroads of disciplines – Biology and Medicine; Economics, Finance and Management – or the supremely creative realms of music and the opera. The awards come with a cash prize of 400,000 euros in each category, along with a diploma and a commemorative artwork.

The award presentation ceremony moves to Bilbao

The annual ceremony of the Frontiers of Knowledge Awards will change venue this year, with the 11th and future editions sited in Bilbao. The presentation event, held until now in the Madrid headquarters of the BBVA Foundation, will take place on 18 June in the Euskalduna Conference Centre, which will also host the previous evening's concert in honor of laureates. The program at this gala concert will be performed by the Orquesta Sinfónica de Euskadi, from now on the principal orchestra associated with the Frontiers Awards.

After the first ten years of this international award scheme – with seven laureates subsequently going on to win the Nobel Prize – the BBVA Foundation wishes to give new impetus to the social projection of the Frontiers Awards by giving the various formal and celebratory events a stable home in the Basque Country, concretely in Bilbao. "Bilbao represents BBVA's roots, and shares with us a spirit of openness and a global outlook anchored on a strong culture of knowledge, art and innovation. With the siting of the Frontiers Awards events in Bilbao, the city will be host to a celebration of knowledge that features leading world figures in diverse areas of science, technology and the arts," declared the BBVA Foundation's President, Carlos Torres Vila.

LAUREATE'S FIRST DECLARATIONS AND IMAGES

A video recording of the new laureate's first interview on receiving news of the award is available from the Atlas FTP with the following coordinates:

Server: **5.40.40.61**

Username: **agenciaatlas2**

Password: **fronteras**

The video is in the folder labelled:

"PREMIO HUMANIDADES Y CIENCIAS SOCIALES"

In the event of connection difficulties, please contact **Miguel Gil** at production company Atlas:

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Fundación **BBVA**

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