

## VARIOUS THEORIES ABOUT THE ORIGIN OF LANGUAGE

**Olena Panchenko**

Doctor of Sciences (Philology), Full Professor, Head of the Department of Translation, Oles Honchar Dnipro National University, Ukraine  
e-mail: epanchenko2017@gmail.com, orcid.org/0000-0003-2217-5613

**Karolina Bilous**

Student at the Department of English Philology, Oles Honchar Dnipro National University, Ukraine  
e-mail: karolinabilous24@gmail.com, orcid.org/0000-0002-3690-5608

### Summary

The main purpose of this paper is to understand and consider the theories about the origin of language: to understand why it is such a complicated task for scientists. What is a language, how it developed, a different approaches and researches, which are connected to that problem. Unfortunately, we don't know what the first language was, how it began – where and when. It's hard to imagine a cultural phenomenon that's more important than the event of language. No human attribute offers can't prove less persuading evidence, regarding its origins. The mystery of its solution, as Christine Kenneally says in her book “The First Word”? lies within the nature of the spoken word. Methods used in study: general and historical information about theories (their description and analysis), methods of theoretical research due to some recent studies, which are crucial for that problem. And it's important to say that now empirical experiments about the origin of language are losing their necessity and effect, but theoretical approach is more suitable.

**Key words:** hypotheses, approach, study, genesis, linguistics.

DOI <https://doi.org/10.23856/5510>

### 1. Introduction

The issue of the origin of the language is quite complex. Suppositions about the origin of the language are made theoretically by reasoning, because the original language has no written monuments. The origin of language must be distinguished from the question of the origin of specific languages of the world. Specific languages, even very ancient ones, arose not earlier than 10 thousand years ago, while humanity spoke several hundred thousand years ago. When and how the language appeared, what it was like at the first stages of human development has been of interest to people since ancient times, but to this day there is no generally accepted answer to them. In ancient times (V–IV centuries BC) the problem of the origin of language was raised within the framework of philosophical discussions about the essence of language. Representatives of Plato's school believed that the names of objects are not given arbitrarily, but in accordance with their nature, which indicates the natural nature of language and, accordingly, the natural biological determination of its origin. Representatives of the Democritus school argued that the names are not related to the nature of things, that no object needs it. The names of objects are needed only by people to convey thoughts about

objects to others and therefore are established by conventional agreement. This is evidence that language arose consciously, by agreement.

## 2. Considering that problem

Anyone who intends to cater to the origins of language should face what critics describe as an inescapable truth: since language does not fossilize, the investigation of its origins shouldn't depend upon experimental proofs but theoretical studies are popular for discussing that problem. These considerations are at the guts of two well-known edicts – *Société de Linguistique de Paris* in 1866 and the *Philological Society of London* in 1872 – that forbade all members from presenting speeches on the topic. The arguments underlying these edicts have a robust intuitive character and seem guided by a matter of common sense: it is simply not possible to rewind tape to the starting point; therefore, the origin of language isn't empirically analyzable. Everything done relies on speculation, the sector (very dangerous, consistent with many) of philosophy rather than science.

Ostracism (a method of temporary banishment by popular vote without trial or special accusation practiced in ancient Greece) imposed by the 2 societies have had negative consequences for a long time. However, the contemporary situation is radically different: for several years, research on language origins is during a revival and currently one of the most discussed topics in literature on human communicative capabilities. additionally, the essential feature of ongoing research is that the clear prevalence of empirical over theoretical studies (*Fitch 2017; Wacewicz and Zywczyński 2017*). Paradoxical though it's going to seem, the large issue today is opposite to that raised by the edicts: it is finding the key to the problem of too much available data.

## 3. Linguistical theories about the origin of language

There is a description about some popular linguistical theories, which were considered by scholars and scientists. And we need to describe them and analyze.

### 1. *Sound imitation theory*

It consists in the fact that language arose by imitating the sounds of nature. The reproduction of the roar of animals, the cry of birds, the noise of water, wind led to the emergence of the first words, for example, moo, bark-bark, ding-ding, bang, drop, etc. from which derivatives such as bark, to bark, drop, to drop, etc. were created. The first speech of the human beings was onomatopoeic – marked by echoic words such as moo, meow, splash, cuckoo, and bang.

Sometimes similar sounding words are peculiar to several languages: cuckoo in Czech sounds “kukachka”; in French - “cuckoo”, in Spanish – “cuco”; in Romanian – “cuc”.

But it is believed that the sound-imitative words in different languages do not coincide. Plato and Democritus initiated this hypothesis. In the 19th century it was supported by William Whitney.

Analyzing, it can be argued that it is impossible to accept such a theory, because according to it, language arose by chance, not by necessity, so the existence of society is not necessary for its emergence. In addition, to imitate the sounds of nature, you need to have a very flexible speech, which implies the precedence of a long development in the past. Relatively few words are onomatopoeic, and these words vary from one language to a different. As an example, a dog's bark is heard as “au au” in Brazil, “ham ham” in Albania, and “wang wang”

in China. Additionally, many onomatopoeic words are of recent origin, and not all are derived from natural sounds. So, we have no reasons to take this theory seriously. Therefore, M. Muller jokingly called it “the theory of woof-woof”.

## 2. Sound-symbolic theory.

It is close to the sound imitation theory. Some scientists identify them. But since this hypothesis is based not on sound imitation, but on sound symbolism, which is certainly a different phenomenon, it is quite justified to separate this hypothesis.

According to the sound-symbolic hypothesis, there is a certain direct connection between human feelings and emotions and sounds. Through sounds, a person conveys his impressions of the world around him. The ancient thinker Aurelius Augustine said that the word “mel” – “honey” is pleasant to the ear, and “acer” – “sharp” - unpleasant. This hypothesis was supported by German scientists Gottfried Wilhelm Leibniz, W. Humboldt, J. Grimm, Ukrainian linguist O. Potebnya, Swiss linguist Charles Balli.

Leibniz, in particular, believed that the sound [l'] expresses something soft and indicates speed: German “leben” – “to live”, “lieben” – “to love”, “Lauf” – “run”, “Lowe” – “lion”.

According to W. Humboldt's observations, the sound combination [li] conveys the idea of what seems to be pouring: “Lied” – “song”, “Licht” – “light”. And the sound [w] is associated with anxiety, uncertainty: “wehen” – “to blow”, “Wind” – “wind”, “Wolke” – “cloud”, “Wunsch” – “desire”. As for the extent of sound-symbolism in language, Leibniz noted that with the development of language, its scope becomes more limited.

Summing up, we can say that not always such examples serve to express pleasant concepts in other languages such as in Ukrainian “lai” – «лай», “dilda” – «дилда», etc.

## 3. Exclamatory hypothesis (emotional, arbitrary exclamations).

Its essence lies in the fact that the objects of the surrounding world caused certain feelings in a person, and he involuntarily uttered sounds that became the first words. Thus, the word is a mirror of the human state of mind.

This theory was initiated by the Epicureans of Ancient Greece (IV-III centuries BC) who believed that the emergence of languages is due to the natural need of man to express his state of mind with sounds. Later, this theory was supported by J.-J. Rousseau, a Genevan philosopher of the 18th century stated that “*passions caused the first sounds of the voice*” and that “*the language of the first people was not the language of geometers, as is usually believed, but the language of poets*” (Rousseau, 1782).

As David Crystal writes in “How Language Works” (Penguin, 2007), this kind of theory still fails to look for “... *the gap between the emotional and therefore the rational aspects of speech expression... .*”

Of course, we cannot deny the importance of emotions and feelings in the development of language, but it is difficult to accept the exclamatory theory of the origin of language, because it sees the main reason for the emergence of language in the individual state of mind of a person. The emergence of language, according to this theory, is an accidental phenomenon (although it is clear that no child will speak until he is among speakers). Again, we can see that exclamations expressing feelings are pronounced differently in different languages: Ukrainian “Well”, English “Oh”. And, of course, language has not only an expressive function in its arsenal, so do not reduce it only to this.

## 4. The hypothesis of the social contract

Its founder is considered to be Diodorus of Sicily, who wrote: “*Initially, people led unsettled lifestyles, like beasts, going out alone to pastures and eating tasty grass and fruits. The trouble taught them to defend themselves from beasts, to help each other. They gradually*

*began to recognize each other. Their sounds were still incomprehensible and unintelligible, but gradually they moved to words and established symbols for each thing, created an explanation of everything around them that was understandable to them”.*

This theory is connected with the above-mentioned controversy about how things got their names, that is, it is a development of the doctrine of Democritus and Aristotle about the conventionality, arbitrariness of names.

The theory of the social contract can be denied at least by the following fact: in order to agree, it was necessary to have a language.

##### *5. Logos theory of the origin of language*

In the early stages of civilization arose logical theory (from Greek logos 'concept; mind, thought') of the origin of language, which exists in several varieties - Vedic, Biblical, Confucian.

In the view of the peoples of India and West Asia (X century BC), the language has divine, spiritual origin. Denoting the spiritual beginning, ancient people used the terms God, word, logos, Tao. The Indian Vedas is considered as the most antique written memorials. The Vedas thought that the founder of names is God, who did not create all names, but only subordinate Gods. Names, things were already named by people, but with the help of one of the Gods – the inspirer of eloquence and poetry.

In the mythology of the ancient Greeks there was a story that the creator of language is the god Hermes, the patron of trade and means of communication, who identified with the Egyptian God of wisdom and letters Thoth. According to the Bible, the carrier of the Word is God. The act of speaking is resorted by God in the beginning of creating the world. Then he gives names to the created beings. These names God sets few of them: day, night, sky, earth, sea, entrusting everything else to Adam. So, according to the Bible, God gave humans the ability to speak, which they used to name things.

The idea of the divine origin of language runs through the history of linguistics. Plato (IV century BC), Bishop Anselm of Canterbury (1033–1109), German educator and scientist J. Herder (1744–1803), classic German philosopher of the Enlightenment H. Lessing (1729–1781), much reflecting on the origin of language, came to the conclusion about its divine origin.

As for Wilhelm von Humboldt the language was considered as an activity of the spirit. His idea of language as energy and spontaneous activity of the human spirit is a further development of the logotic theory of the origin of language. A branch of the logos theory is the idea of many ancient peoples of the world about the wise men, noble people, legislators as names. These ideas, the creation of language is attributed to highly respected and holy ancestors, founders of the tribe, who were usually associated with the gods.

The role of name-giver could be played not only by ancestors but also by contemporaries, ruling the state, which is typical, for example, for ancient Chinese philosophy. Tao was considered as a real creative force, which establishes order in society through the rulers. The ruler should give and pronounce names correctly, only in this case it is possible to effectively communicate between him and his subjects.

The idea of the founders of names had its followers in the history of linguistics. French philosopher and publicist J.M. Degerando (1772–1842) studying the behaviour of some tribes, concluded that language could be communicated to only a few people – more developed and wise leaders. German philologist J. Grimm (1785–1863): the easiest way to imagine the origin of language in a situation where two or three pairs of ancestors and their children.

#### 4. Biolinguistical theories about the origin of language

Numerous researchers, scientists, animal behaviourists and archaeologists have conducted a number of experiments and excavated many historical sites to undertake to understand this means of communication which can be used to convey non-literal information and doing routine manipulations in our daily lives. Moreover, these studies have added comparative studies among the primates.

While these studies have revealed that primates aside from hominids are capable of using gestures, their use of language constructively was limited to some words only comparable to language competency of two year old.

When many scientists and researchers attribute the emergence of the utilization of language among *Homo sapiens* to spontaneous emergence in a manner similar to the “big bang theory” of the earth origin, others suggest that language use came from genetic and evolved over time.

The study of language is thoroughly affected by Noam Chomsky. He came up with three modernizations:

(1) Skinner’s Verbal Behavior scrutiny reversed the paradigm about behavior and also powered the psychological “cognitive revolution”

(2) the point that language relies upon inherited constructive mechanism, which calls ‘Universal Grammar’, was made up unique similar by Noam

(3) Principles and Parameters program was the main strategy which triggered ignition of inquests into variety of languages. Also this program served as a research into the construction of language, which has known as the ‘Minimalist Program’

Chomsky thinks that the origin of language has been studied from a standpoint of beast communication similar as calls of hams and so on. But he says that this is a waste of time because mortal language is relatively different from beast communicational chops:

*“There’s a long history of study of origin of language, asking how it arose from calls of hams and so forth. That disquisition on my view is a complete waste of time, because language is grounded on an entirely different principle than any beast communication system. It’s quite possible that mortal gestures have evolved from beast communication systems, but not mortal language. It has a completely different principle” (Chomsky 1988 183).*

So, how does Chomsky argue the origin of mortal language? He makes his idea accessible about it, proving that this is just a enterprise:

*“Now for some enterprise about mortal elaboration. Maybe at some time hundreds of thousands of times ago, some small change took place, some mutation took place in the cells of prehuman organisms. And for reasons of drugs which aren't yet understood, that lead to the representation in the mind/ brain of the mechanisms of separate perpetuity, the introductory conception of language and also of the number system. That made it possible to suppose, in our sense of thinking. So now humans – or prehumans could go beyond just replying to stimulants and could construct complex structures out of the world of their experience, and now, the world of their imagination. maybe that was the origin of mortal language” (Chomsky 1988 183).*

Chomsky’s continuity that the origin of language is mutation is quite the same thing as saying that nothing can say about the origin of language or that God gives mortal beings language. On the other hand, it's relatively right to say that he doesn't explain anything about the origin of language.

Yubal Noah Harari says the same thing as Chomsky's idea:

*"We need to understand deeper about Cognitive Revolution. It's a common thought that it is considered through modern approaches to gossips and permits. It was a long time ago, nearly 70000-30000 years. What caused it? We're not sure. The most generally believed proposition (Chomsky's proposition) argues that accidental inheritable mutations changed the inner wiring of the smarts of Sapiens, enabling them to suppose in unknown ways and to use a communication as a new tool due to language. We can give its name as the "Tree of Knowledge mutation". Why did it develop in Sapiens DNA but not in that of Neanderthals? It's only a chance of probability, nothing more, if we may say so. It's far crucial point to trace the of the Tree of Knowledge mutation changes, its causes and tendencies. Why the new language of Sapience expanded so far and allowed it to defeat the world"(Harari 2015 23-24).*

Harari might have noticed a Chomsky's proposition about language origin. Likewise, Harari says that mortal language evolved as a way of tattling. An alternate theory agrees that our unique language evolved as a means of participating information about the world. But the most important information that demanded to be conveyed was about humans, not about lions and bison. Our language evolved as a way of tattling. According to this theory, Homo sapiens is primarily a social beast. Social cooperation is our key for survival and reduplication. It isn't enough for individual men and women to know the whereabouts of Napoleons and bison. It's much more important for them to know who in their band hates whom, who's sleeping with whom, who's honest, and who's a cheat.

The new verbal chops that modern Sapiens acquired about seventy millennia ago enabled them to spread the gossips for hours on end. Reliable information about who could be trusted meant that small bands could expand into larger bands, and Sapiens could develop tighter and further sophisticated types of cooperation. (Harari 2015, 25-26)

Therefore, Harari claims that human language developed through tattling, saying that nowadays our chats with someone are full of tattling. The gossip theory might sound like a joke, but multitudinous studies support it. At the present the vast majority of human communication – whether in the form of emails, phone calls or review columns is gossip. It comes so naturally to us that it seems as if our language was came up for this veritably purpose (Harari, 2015 26).

Michael Corballis, in his quest to work out the origin of language, suggested *gestural* and *vocal* theories. In his theories, he proposed that human language faculty preceded the event of vocally transmitted speech. Also, he argued that human language capability relies mostly on gestures.

#### 1. *Gestural theory*

A great number of researchers were working on that theory. Initially, the first scientist who considered that theory was John Bulwer, a London physician, who wrote about "*natural (sic) language of the hands*", relying upon Cicero's and Quintilian's work. In the next century, the French philosopher Abbe Etienne Bonnot de Condilla, in his fable described two children who had no possibility to learn a language cause they were struck in the desert after the Flood. Thus, they developed by own efforts language through manual gestures (*Condillac 1747*). In that way, Condillac by this fable denied the Church doctrine that language was given by God as a gift.

In modern time the first understandable way for the gestural theory of language origin was described by the anthropologist Gordon W. Hewes (*Hewes, G 1973*). He was inspired by the discovery that big monkeys could not be taught to speak, but instead of that, they used to shows signs in order to communicate.

As for Michael Corballis, he agrees with gestural theory to be promoted. In his paper (*New Perspectives on the Origins of language*, 2013, p. 172–173) he says that the primates are evolved into arboreal environment, and their skills specialized for climbing, clinging, grasping in order to control their movements:

*“Human beings have three-dimensional eyesight, with the help of which people can differentiate a wide range of colors, able to understand and analyze form, geolocation and movements. Humans, as primates, therefore emerged with a sophisticated pre-adaption for the production and perception of movements of the hands and arms... The hands and arms, with the capacity to move freely and intentionally in four-dimensional space-time, therefore provide a natural medium for the communication of events that occur in the four-dimensional world”.*

## 2. Vocal theory

This theory can sound similar to the last one but they have different meanings, because they are both models for describing language origin. These theories can be separated, as well as multisensory models, which pose harmonious relationship between vocalization and gesture. Gestural models are understandable, they advance visually-conveyed symbols derived earlier than those, which were generated vocally, so speech is simply a substitute of before fixed symbolic system that moderated by gestures alone.

Returning to his paper, which was mentioned above, Corballis says that vocal theory is not intentional and proves it by his comments:

*“We can say without a doubt that we used to speaking and it became so important and usual to us. It happened because we have evolved over the time a capability to produce vocal ciphers, so now we surely can deliver very perplex data, even if it consists of geographical data... The conscious control of vocalization, though, is largely restricted to humans and to some birds... Primate vocalizations are not entirely fixed. For instance, chimpanzees appear able to modify their screams when under stack, depending on the severity of the attack and their status relative to that of nearby chimps, and listening chimps can distinguish the screams of a victim from that of an aggressor... Humans exhibit considerable variability in emotional vocalizations, such as laughing or crying, and these can provide data in an influenced circumstances, or, even more, in social particular situation. We can differ simply and immediately a cultivated chuckling from wild gaiety”.*

According to that, we can say that the intention of language, with its complicated control of features of vocalization, is tend to be behind the vocal repertory of inhuman primates. Even if consider that at a surface level, human dialogue is quite not what are the vocal interactions between primates. As Arcadi (*Arcadi, 2000*) observed that chimpanzees are not answer to which calls they hear, however, when they do the vocal structure of the answer and it sounds very similar to what they heard. Unlike in human talk when the structures of interchanged comments are peculiar and different.

## 5. Recent researches about that problem

International disquisition involving the University of Adelaide has slip new light on the origins of some of the most considerably spoken languages in the world. Three billion people moment speak a language that is part of the Indo-European family of languages, gauging Europe as well as Central, Western and South Asia. But the reason why these languages – analogous as English, Spanish, Russian and Hindi – are related has been a source of some argument for further than two hundred times. In the magazine *Nature* was printed a moment of *New Exploration*. Antique DNA researchers from the University of Adelaide and the Harvard

Medical School took part in it. This research unveiled that partially, some of the Indo-European languages, which has its natives in Europe is a consequence of a huge migration from the East of Russia:

*“This new study is the biggest of its kind so far and has helped to meliorate our understanding of the verbal impact of Stone Age migration,”* tells co-first author Dr Wolfgang Haak, from the Australian Centre for Ancient DNA (ACAD) in the University of Adelaide.

The researchers set up validation of two major population reserves in Europe during the Stone Age. The first was the appearance of Europe’s first farmers, who had spread from the Near East (modern-day Turkey).

From the words of an author of the study, ACAD Director professor Alan we can realize that the geographical distances and the difference in material culture are the factors, thanks to which exceptional analogy due to inherited lives can be traced. It’s not important from which parts of Europe they are, it’s more important to say that the primary farmers are nearly alike and must have the identical origin.

Co-first author of the study Dr Iosif Lazaridis, a postdoctoral fellow at Harvard Medical School, says remarkably, the hunter-gatherers that lived in Europe did not evaporate after the first farmers moved by. He said that hunter strain under renovation had passed rural residence of Europe nearly 6000–5000 years ago.

Unexpectedly, a third strain element, with its origins in the east, was set up to be present in every Central European sample after 4500 times agone, but not before that time, marking the alternate population development:

*“It was really a great moment when we looked at the new information and brightened up,”* says Dr Lazaridis. The team evaluates that the so-called *“Corded Ware”* people (named after their distinguishing ware) had 75 of their strain from the eastern down.

*“Only a huge resettling enabled to have a powerful impact on the spoken languages, which people were used,”* points Dr Haak. *“This subsequently migration sits well with linguists who had suggested a more recent spread of Indo-European, predicated on similar words for wheeled vehicles that had only been in use since 5000 times agone.”*

The leader of the study, Professor David Reich of Harvard Medical School, the Broad Institute, thinks that a wide spread thought about a hypothesis that Indo-European languages began to develop thanks to farmers representatives, who are natives from Anatolia. This statement was challenged by consequences.

He says the new study doesn’t break the centuries-old problem of the motherland of all Indo-European languages, which are distributed considerably in Eurasia. Still, the team is auspicious that a result may be within reach. Professor Reich declares that for him and his team now important to take in how Europe inhabitants, in what circumstances approximately 3000–6000 years ago were in friendly terms with Caucasus, India and Iran and alo East. In these areas Indo-European languages are widely spoken.

Another research debate looks at the question of why humans have language and animals do not. The problem boils down to two main theories about the origin of language. The first one demonstrates that language emerged from bird singing, dolphin whistling and other ancestors that have hundreds of millions of years of evolution. The second theory states that language is an exclusively human adaptation that has no ancestors among other species.

Harvard psychology professor Mark Hauser and his colleagues presented the third idea, which combines elements of a long history of evolution and recent adaptation. Hauser with his team tried to study a different hypothesis, which never were under discussion. Luckily, it gives a huge chances for considering and proposing other ideas.



Noam Chomsky from Massachusetts Institute of Technology, a remarkable linguist, Hauser and Fitch, who is Harvard psychologist W. Tecumseh argue that the difference between animal communication and human language boils down to recursion – the ability to take discrete elements, such as numbers and words, and recombine them to form a variety of ways of expression. Animals are not capable of this, so even though they have had original experiences, they cannot string thoughts together to form an infinite number of descriptions and statements.

Recursion might not have evolved specifically for the purpose of allowing humans to advise, discourse with, or bore each other, the experimenters write in the Nov. 22 issue of Science. It could have come from acclimations that help creatures navigate or handle figures. Tamarin monkeys, for illustration, can count up to four precisely and distinguish larger figures in the sense that they know 12 objects are further than eight objects. Hauser believes that the mortal capability to count to advanced figures precisely came only after we evolved language and developed words like “twenty-nine” and “one thousand two hundred forty”.

Natural selection is the great sculptor of elaboration that favors the continuity of features, like feathers and hands, which give those who retain them lesser survival eventuality than those who do not. similar selection could have acted on the capability to handle figures and to get from place to place in a way that produced an unexpected result – language.

In other words, a capability to do the internal calculations involved in navigating between feeding and parentage grounds, or understanding that 12 is lesser than four, could have led to a derivate now enjoyed by only one species.

Still, indeed, be this way. If effects did. The most probable time for its origin was after the ancestors of hams and humans went their separate evolutionary ways, about 6 million times ago. “*That’s plenitude of time for language to have evolved gradationally,*” Hauser commentary.

Before that time, other verbal communication systems evolved. As for example can serve caution system, which velvet monkeys in Eastern Africa came up with. Vervets sound different warnings for different pitfalls. Leopards, eagles, snakes, and baboons all evoke specific calls, because each adversary hunts in a different way. A leopard caution makes vervets to run into trees. An eagle alarm has them hide under backwoods. A snake signal effects the monkeys to rely on their back legs. A baboon call make them hurrying to brushwood areas.

This system allows vervets to respond to a trouble without seeing what’s going on. It reminds when somebody yelling “*fire*” in a theater. You don’t need to see bank or dears to start you toward the exit.

Still, similar brief warnings aren’t as helpful to survival as words. They don’t contain useful information, similar as “*There’s one leopard coming from the right and another behind you*”.

The same holds true for other grunts, mutters, hisses, and songs. The information they give doesn’t go beyond:

“*I’m the main kind of animal,*”; “*Only after me meal is important,*” or “*I’m a feminine/masculine type of beast and I busied myself with attracting a partner*”. Chimps in the wild were scrutinized by Hauser. Actually, he realizes that chimps create peculiar calls at the time, when they’ve found a food. In spite of that their noise can’t unveil if it’s pomegranates or bananas.

In the time of proximity with human beings and each other is developing a dolphins effervesce and they search due to reverberation from ticking sounds. But their sound repertuaire can’t be described as a language. Identical situation with the jumbos’s songs.

Raspberry song is rich in recombinations of separate notes, but the warbles don’t lead to the type of recursion involved in language. “*No matter how long and complicated,*” Hauser

specifies, *“the songs contain only one meaning ‘I ’m a joker of this species in this home, and I’m calling to entice a partner’”*.

Although their proposition limits recursion to humans, Hauser, Chomsky, and Fitch encourage their associates to look for it in other species. Certain manly bowerbirds bite berries to make a multicolored juice with which they embellish their nests to attract ladies. Some scholars would ingrain similar tool use as recursive. Hauser insists that *“it’s cultural but not recursive”*.

It’s another illustration of creatures that boast some of the forerunners of language without the precious recursive property that makes mortal discussion and literature possible. Hauser and Fitch demonstrated this strongly in laboratory trials with tamarin monkeys. They wanted to make clear whether the simians have the capability for studying a statistical rule evolving groups of paired consonants and vowels, such sounds as “sa”, “me”, “hi”, “mo”, “gu”. The rule allows these sounds to be combined in an horizonless variety of expressions because it’s grounded on recursion. However, they would pay lower attention to sound dyads that are harmonious with it than to sounds that violate the rule, if the monkeys learned the rule. While the clever tamarins can do lower exacting forms of number and sound demarcation, they fail to learn this statistical rule.

Hauser and Fitch did the same trial with Harvard scholars, and, as you might suspect, the scholars paid further attention to violations of the pairing rule. *“They did this on fluent level even don’t know what’s the purpose of the rule”*, Hauser specifies.

Other tests reveal that tamarins and mortal babies partake an capability to distinguish between the sounds of two different languages, like Dutch and Japanese. Both species can also determine when one word ends and another begins in a sluice of adult speech. To Hauser, this means that similar perceptual, but not recursive, capacities didn’t evolve for the purpose of learning language; they was before speech evolved. The result, Hauser says, *“suggests that the recursive property of language may not have evolved until after 6 million times ago, although sensitive and motor aspects of language expression were existed a long time before”*.

The question is still open, the experimenters admit. To prove their new proposition conclusively requires further trials to be done, especially with mortal babies and other species, including chimpanzees, dolphins, and indeed cravens.

## 6. Conclusions

So, having considered a large number of theories about the origin of language, we can safely say that this issue will be discussed in the future, because this topic will never exhaust itself. More and more new ideas and hypotheses will be considered by scientists. The mentioned linguistic and biolinguistic theories allow us to understand that scientists find different approaches to solving this problem. Recent studies conducted by the University of Adelaide and some professors at Harvard University are trying to understand why we, humans, have language and can express it verbally, while saying that animals still have something to tell, because they have a lot of original experience, they just are not able to analyze and tell information like we do.

## References

1. Arcadi, A. C. (2000). *Vocal responsiveness in male wild chimpanzees: Implications for the evolution of language*. *Journal of Human Evolution*.

2. Chomsky, N. (1988). *Language and Problems of Knowledge*. MIT Press.
3. Corballis, M. (2013). *Gestural theory of the origins of language*. *New Perspectives on the Origins of Language*, p. 171–173.
4. Cromie, W. J. (2002). *Researchers debate origin of language*. *Harvard Gazette*. <https://news.harvard.edu/gazette/story/2002/12/researchers-debate-origin-of-language-2/>
5. Crystal, D. (2007). *How Language Works: How Babies Babble, Words Change Meaning, and Languages Live or Die*. Avery.
6. de Condillac, E. B. (2001). *Essay on the origin of human knowledge*. Cambridge University Press. (1747)
7. Fitch, W. (2017). *Empirical approaches to the study of language evolution*.
8. Harari, Y. N. (2015). *Sapiens: A Brief History of Humankind*. Harper.
9. Hewes, G. (1973). *Primate Communication and the Gesture Origin of Language*.
10. Kenneally, C. (2008). *The First Word: The Search for the Origins of Language*. Penguin Books.
11. *The Philological Society*. *The Philological Society*. <https://philsoc.org.uk/>
12. *Research challenges popular theory on origin of languages*. *The University of Adelaide*. <https://www.adelaide.edu.au/news/news76562.html>
13. Rousseau, J.-J. (1782). *Essai sur l'origine des langues*.
14. *Société de Linguistique de Paris*. *Société de Linguistique de Paris*. <https://www.slp-paris.com/>
15. Waciewicz, S., & Zywczyński, P. (2017). *The multimodal origins of linguistic communication*.