

A BRIEF HISTORICAL OVERVIEW OF LANGUAGE DISCUSSIONS: FROM SHADES ON A CAVE WALL TO MINIMALISM AND THE FOXP2 GENE

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1. Introduction

*Humpty Dumpty sat on a wall
Humpty Dumpty had a great fall
All the king's horses and all the king's men
Couldn't put Humpty together again*

For possibly different reasons, some philosophical texts are written in obscure language, or better yet, the language used in philosophical texts is regarded as obscure by some. For example, in a panel, Arslan (2018) stated that he would read Plato and understand him clearly when he was younger, but when he read texts about Plato, he understood almost nothing from those texts because the texts were full of obscurity for no apparent reasons at all. Sadly, creating obscurity makes much more profit than creating clarity. Some radicals even regarded philosophers as the subcontractors of the church by stating that “...the professors of philosophy are learned salesmen of the theologians” (Lenin, 1962, p. 415). The main aim of the current paper is to make philosophical discussions about human language clear to those who do not want to get lost in philosophical texts but still want to make sense of the intersection between philosophy and human language. As a forenotice and warning, we should remember that common concepts like idealism, realism and rationalism have pragmatic and educational purposes; they might help us gain an elementary and superficial understanding of certain arguments, but a deeper understanding of any subject will require us to think without limitations of such *frozen* concepts.

Philosophy has an extensive history, and the main problem with its history is that philosophy meant very different things at different periods. Once, it was regarded as science in general (Arslan, 2008). Algebra, geometry, the human mind, language and even medicine was part of philosophy (Frank, 1952). Philosophy, “with its rational conceptions of nature, its search for natural explanations, and its attempt to achieve universally applicable laws” (Miller, 1949, p. 309), helped its many branches evolve into sciences. Similarly, when philosophy and science got divorced in the 19th century, discussions about human language also moved to their domain as a new branch of science. Without at least some knowledge about the history of these discussions and the current issues related to language in general, it will be difficult to understand human language and make related deductions. When, at the beginning of the 21st century, Daniel Everett claimed that there was no such thing as universal grammar, he was trying to disprove Noam Chomsky’s theories about human language. Chomsky’s theories are, in a way, extensions of language discussions that go back to Descartes and even as far as to ancient Greece, the pre-Socratic era.

As Pinker (2007) puts it, there is hardly anyone who is not interested in language. Supposedly, language is as old as the modern human and has always been a topic of concern. The oldest written remarks about human language are mostly dyed in a mixture of myths and religion. In the Old Testament, it is stated that people once spoke the same language worldwide. However, one-day people in the city of Shinar decided to build a very high tower to reach the heavens. The Lord came down to see this city and the tower that the people were building, and felt a threat and said, “If as one people speaking the same language, they have begun to do this, then nothing they plan to do will be impossible for them. Come, let us go down and confuse their language so they will not understand each other” (English Standard Version Bible, Genesis, 11, p. 6-7). According to this myth, this is how languages are born. Myths are fun, but they do not help us understand phenomena, and usually, the beginning of understanding a phenomenon is generally the end of the related myths.

We are fully aware that human language is not just the concern of the Western cultures as it has also been studied in the Eastern cultures by grammarians like Ibn Abi Ishaq and Pāṇini. Compared to Western cultures, Eastern cultures have their own dynamics (Huntington, 2002; Said, 1978); therefore, discussions related to human language in Eastern cultures also have a different background and rationale, which should be studied separately. In addition to this, we are also aware that it is impossible to give a detailed account of philosophical discussions related to human language in just one paper; each section of this paper is a potential book. There is a long but connected line of discussion about human language in general, and if we want to trace back what has been said on the matter, we need to look in the right direction and the right places. With this study, we wanted to show this direction and these places.

2. Language Discussions in the Main Eras of Philosophy

2.1. Ancient Greece

Systematic approaches to human language emerged with philosophy, and as is usually the case, discussions related to philosophy start with ancient Greece. The first notable ideas about language come from Parmenides (515 – 460 BC), one of the most important pre-Socratic philosophers. His main discussion was based on reality. To his mind, our experience of the world was an illusion, which means that what we see around us as being born, moving, changing and dying are actually in no way subject to any of these phenomena that we assume. In addition to this, nothing is separate, which signifies the idea of monism. Parmenides could be dubbed an extreme rationalist who presupposed that all the experiences we go through are deceptive. Through this perspective, he concludes that the only source of knowledge is the human mind.

Parmenides’ ideas related to language are limited but significant. His main argument about the human mind and language is based on this premise: When we think, it must be something we can think of. In the same vein, when we use a name, we must refer to something. This premise suggests that both our mind and language require objects outside themselves, and since we can think and talk about them all the time, they must also exist without change. That is, what can

be thought of or spoken of must exist permanently. This statement might seem very radical to support and too weak to justify. Still, it should be noted that, to a certain extent, Parmenides' discussions are reactions to Heraclitus' ideas which are based on the constant and never-ending changes in nature. As a matter of fact, Heraclitus was a contemporary of Parmenides. In a way, their discussions shaped the background on which Socrates and his student Plato based their philosophy.

Plato (424 – 347 BC), who lived in an era of profound political and social chaos (Popper, 2003), is often said to have constructed his ideas based on the discussions of Heraclitus and Parmenides; however, not by endorsing them but through their criticism. By taking into account related discussions and views of Socrates, his master, Plato founded an idealist framework that will answer questions related to the source of knowledge, and thus known as the original *apriorist*. From his perspective, Parmenides' ideas could not be justified, and Heraclitus' idea of constant change is misinterpreted. Socrates believed that if everything is in a state of continuous change, then the meanings of words must also be constantly changing (Zabeeh, 1966). At first sight, Socrates claimed, everything might seem to be in a state of constant change; however, these changes are taking place in the observable world, which is just a reflection of the ideal real world. Our senses are, in a way, like obstructions in our effort to understand reality (Arslan, 2016).

Plato is mostly known for his cave allegory, which summarizes his idealism. In this allegory, which is presented through Socrates' narration, a group of people are sitting in a cave facing a blank wall, and they are chained. They see shades of objects on the wall and suppose they are real. However, the actual objects are outside the cave, and what those people are watching are just representations of reality. When one of those people is forced (*Grk. αναγκάσει*) to stand up and see the actual objects in the daylight, they become frustrated. In this famous allegory, the chained people facing the blank wall do not speak to each other. There are shades of objects reflecting on the blank wall, but nobody seems to be communicating with each other about them. From this lack of communication, one can deduce that Plato does not regard language as a means to understand the world or solve problems.

Plato builds up his ideas through imaginary dialogues, often referred to as the Socratic or the Elenctic method. For example, in these dialogues, Socrates asks the imaginary interlocutors, "What is virtue?" and the interlocutors give answers such as "Virtue is courage" or "Virtue is honesty". Then, Socrates states that all these answers are examples or parts of the concept of 'virtue' but not the virtue itself and thus inadequate. This dynamism is the starting point of Plato's so-called idealism, and obviously, language has a role in it. Although Partee (1972) suggests that Plato somehow refuses to take a systematic position towards language, he also states that Plato tries to question the origin, nature, and use of words and language with some level of caution. According to Plato, words themselves are not real per se but just imitations of physical objects, thus reality. Therefore, the study of language can only yield a focal level inferior to reality. To him, reality lies somewhere outside the confines of human language.

Plato's paradigm concerning the inferiority of human language as a study area obviously had effects on his general views of the world, and it might have hindered his further investigations of human language.

Plato's ideas were discussed and criticized by his student Aristotle (384 – 322 BC), who could be argued to be the first theoretical linguist (Seuren, 2006). Basically, Aristotle rejected Plato's idea that there are ideal and perfect concepts by which we can understand the real and imperfect world around us; along with many other points, this was a serious deviation from Platonist ideas. Not sidelining induction altogether, Aristotle believed that Plato placed too much emphasis on deduction. From this respect, Aristotle was a nominalist. Nominalism is the philosophical notion stating that things are what they are because we name them that way, which is naturally contradictory to Plato's world of ideas. In this sense, Aristotle was not convinced about the independent existence of ideas, concepts, or universals; to him, objects having the same names could not have anything in common except the name they were given.

Furthermore, Aristotle's reasoning depended profoundly, but not exclusively, on induction. He dealt with the concept of induction by regarding it as moving things between classes like primary and secondary substances or from the particular to the universal. These apparent deviations from Platonist views didn't directly affect language discussions. Aristotle's mentions of human language are limited; he does not have a book or a chapter solely dedicated to human language. This might be related to the paradigm that had started with Socrates and Plato, which regarded human language as an inferior topic. We can find Aristotle's language-related ideas in fragments in his *On Interpretation*, *Metaphysics* and *Categories* (Hudry, 2015; Seuren, 2006). According to Aristotle, the relationship between spoken and written language is conventional, and he regards the traditional use of words in three categories: univocal, equivocal and analogical or sometimes called as derivative. When we use a word univocally, we use it for different objects, but the meaning stays the same. Thus, for example, we can use the adjective *beautiful* to define a person or a day; in this manner, what we mean is quite clear. In equivocal use of language, we attach meanings to the objects by using the same word, but the word's meaning changes significantly depending on the object and the context. For example, when we use the word *degree* to refer to graduation from university and body heat, the meanings are different, yet they are still related. In an analogical sense, on the other hand, the meaning of the word that we use changes with proportion to the object that we are referring to. When we call a language learner *fast*, we mean something, and when we call a car *fast*, we mean another; the concept is the same but the associations of the word *fast* change from one situation to the other depending on the object that we are describing. These analyses might sound simple and irrelevant; however, these were the first systematic attempts to understand human language.

Primarily because of the dominant non-secular paradigms emerging after the first century with the emergence of Christianity, the following ages were infertile in terms of science and philosophy. Accordingly, human language was not a matter of discussion for a long time. Other than Neo-Platonists like Plotinus and Proklos, whose ideas were nothing but monastic and

dogmatic interpretations (Hegel, 1968), possibly intentional misinterpretations of Plato's ideas, and much later Thomas Aquinas (1225 – 1274), who founded the theological basis of the Catholic church based on Aristotelian philosophy, Western intellectual life was mostly dormant for centuries. It took about two thousand years after Socrates, Plato and Aristotle for other intellectual revolutions to appear.

2.2. The Cartesian Era

When the modern scientific revolution began with Galileo (1564 – 1642), the world started to look like an extensive, complicated and mechanical system from the scientific point of view. The perception of the outside world began to appear as mechanical; nature was regarded as a big machine. It was a sort of rejection of the dominant paradigm that the universe operated on mystical dynamics. This new scientific point of view required the dissection of all mechanic systems into their smallest parts. Philosophy also took its share from this new perspective. For example, Descartes (1596 – 1650) applied it at the biological level. In that era, it was believed that the images around us make their way into our minds through a mystical process. In *Dioptrique*, one of his essays in *Discourse on the Method*, Descartes tried to explain the optical process involved in seeing. His interpretation was that seeing is not totally related to the outside world, but it was mainly a mental process; the human mind used the senses to create visions. Thus, to Descartes, it was nearly impossible to make sense of the outside world without some *innate* and *hardwired* knowledge; the innate structure of the mind appeared to be operating on certain principles.

Although Descartes' scientific views were not as credible as his contemporaries (Russell, 1983), his “philosophic edifice de nova” (Russell, 1983, p. 542) was truly remarkable. Having no masters or teachers in the classical scholastic sense, he was the first philosopher who thought that it was possible to make pure deduction without the need for any induction. Furthermore, he believed that we could start with pure reason and build everything else on that very basis, and thus came the famous phrase, “*cogito ergo sum*”, meaning “I think; therefore I am”.

The human will was mainly left out of the equation in the Cartesian world. According to this point of view, every phenomenon around us acts on mechanical principles. Human language is the only human trait that does not fit in with the mechanical world paradigm (Chomsky, 1993). Descartes used the everyday use of human language to exemplify this exception by discussing the *creative* aspect of human language. Human language is not a mechanical process but a creative one. Most of the time, we hear utterances from other people which we have never heard before. Therefore, human language is not predictable like other natural phenomena. By taking this very point into account, Descartes reached a dualist conclusion; the body and the mind. On one side, he regarded the human body, which was in line with his mechanical view of nature, and he placed the human mind on the other. Later, when Newton rejected Descartes' ideas of a mechanical nature and claimed that nature acts on mystical forces that the human mind cannot

comprehend (Kubbinga, 1988), it was the body aspect of Descartes' theory that he found absurd, not the aspect related to the human mind.

Descartes was a pure rationalist and regarded the human mind as the source of knowledge; it was the mind that created knowledge, not the other way around; therefore, he considered knowledge as *a priori*. Much later, his somewhat crude ideas of human language and its creative aspect would find their resonance through Noam Chomsky.

2.3. The Era of Enlightenment and Tabula Rasa

The founder of empiricism and the father of enlightenment, John Locke (1632-1704), has also had significant influence over Western philosophy. His greatest impact was on the discussions related to political sciences, religion and education. He was one of the first philosophers to oppose the imposition of religious beliefs by an authority or individuals. His related ideas are regarded as the roots of modern liberalism (Russell, 1983). He also tried to analyze the human mind and, thereby, human language. According to Lock, experience was the source of all human knowledge. At this point, he opposed the common notion of *innate* human knowledge, which took its roots from the Platonian idealist and Cartesian rationalist perspectives. To him, without direct experience, no knowledge was possible. At birth, human beings were born with minds like a clean slate (*Lat. tabula rasa*), and in time and through experience, this slate was filled with experience-based knowledge. At this point, of course, human language needed explanation.

With a fundamental point of view, Locke states that humans have language to talk about ideas and beliefs and understand those of their own kind. Parrots can also be taught to produce certain sounds of human language, but they are by no means capable of human language (Locke, 1689). It might seem that you do not need to be a full-time philosopher to articulate such straightforward ideas. Still, considering that the analyses of human language in the real sense did not emerge until the 19th century, Locke's attempt to define the function of human language, in general, was something new.

To Locke, when we hear words or other people talking, we naturally assume connections between words and ideas. However, this assumption is "a perfect arbitrary imposition" (Locke, 1689, Chapter II). This arbitrariness often causes a failure to excite the same ideas in others because different people tend to attach different meanings to the same words. Locke even gives the example of the great Augustus, who was the greatest ruler of his time. Augustus acknowledged his inability to make a new Latin word. Locke interprets this situation as an inability to appoint what idea any sound should signify. Locke (1689) continues:

But whatever be the consequence of any man's using of words differently, either from their general meaning, or the particular sense of the person to whom he addresses them; this is certain, their signification, in his use of them, is limited to his ideas, and they can be signs of nothing else (Chapter II).

At this point, a reference to discussions in Plato's *Cratylus* is needed. In these discussions, the criteria determining the correct name choice for any given object is the focal point, and two extreme perspectives emerge as conventionalism and naturalism. The conventionalist perspective sees names given to objects as totally arbitrary, and the naturalist perspective regards no naming as arbitrary. Locke took this conventionalist perspective one step further to lead the way to Ferdinand de Saussure's ideas about the arbitrariness of the relationship between signifier and signified.

2.4. German Idealism

German idealism was a reaction to the basic ideas of the enlightenment era, the new science, and it did not have direct bearings on language discussions. The perspective regarding nature as a mechanical entity was questioned in this era, and a bridge between rationalism and idealism was constructed through the discussions of Immanuel Kant (1724 – 1804) and Georg Wilhelm Friedrich Hegel (1770 – 1831).

Up to the times of Kant, there were two primary schools of philosophical thought as idealism and realism, which began with Plato and Aristotle. It was an ongoing debate whether objects really exist or they only exist in the human mind. Kant took a very different stand on this matter and started by acknowledging that things exist outside the human mind; where he made the difference was his approach to how the human mind shapes this existence. Thus, Kant claimed that there were two types of worlds in this matter: *phenomenon* and *noumenon*. The phenomenal world is the world of objects that we can observe through our senses, and the noumenon world is the world independent from our senses. The phenomenal world is the one we call reality with a collective cognition; on the other hand, the noumenon world is beyond our cognition. As humans, we are not equipped to experience this world through our senses because of their limitations.

To Kant, the human mind possesses an intuition of *space and time* through which it processes the outside world, and meanings that we attach to the outside world can only operate through this intuition. Kant regarded time and space as the creations of the human mind independent of reality. In other words, objects exist independent from our senses, and our experience of the outside world confirms our mode of cognition; Kant calls this independent existence as thing-in-itself (Ger. *ding an sich*). This perspective to idealism is called *Transcendental Idealism*. While transcendental realism accepts the existence of space and time, transcendental idealism sees them as byproducts of human cognition; space and time exist because humans exist. With the emergence of this perspective, the role of the human mind in experiencing and understanding the outside world and the space and time intuitions to create meaning were centralized. Kant's successors followed this exact route. To Kant, our cognition needs a means to operate, and that means is language. From this perspective, language in use is inferior to our cognition. Kant's dualism on cognition and language later sparked new discussions on the matter (see Forster, 2012 and Pinker, 2007 for details).

Although Kant or his philosophical successors did not develop detailed explanations of or discussions about human language, it would be safe to assume that human language was an obvious *operant* in Kant's space and time intuition, which is innate and exclusive to the human species.

2.5. Modern Times

Contemporary philosophy mainly dwells on epistemology, metaphysics, logic, ethics, aesthetics, the philosophy of mind, the philosophy of language, political philosophy, and philosophical examination of the assumptions, methods and claims of other areas of focus in science and social science (Grayling, 2019). Contemporary philosophy begins with discussions on propositions, which is a part of formal logic. In classical terms, a proposition is a statement with a truth value either as true (1) or false (0). Propositions can be regarded as the link between philosophy and language.

Equipped with a paradigm based on formal logic, the important figures in this era regarded language as an entity that could be analyzed through logic. The main rationale behind this approach was to solve the problem of meaning and thus minimize the ambiguities in language by creating a domain in which language could be treated as mathematics. In this era, three important figures shaped the discussions related to language: Gottlob Frege (1848 – 1925), Bertrand Russell (1872-1970), and Ludwig Wittgenstein (1889-1951), respectively.

In terms of philosophy and language; Frege, Russell and Wittgenstein were basically different from other philosophers before them as they did not apply philosophical methods to the study of language, but “they applied linguistic methods to the study of certain problems in philosophy” (Potter, 2013, p. 852). Frege and Russell mark the beginning of analytical philosophy and, therefore, a linguistic turn. Until this era, concepts like meaning and truth were discussed separately from language. However, it was through Frege's and Russell's ideas that these topics needed to be considered under the domain of human language.

As a mathematician and logician, Frege studied the quantification of logic which is the process of attaching signs of quantity to the predicate or subject of a proposition. Before Frege, laws of logic were regarded as laws of thought, but Frege saw a problem with this and claimed that the validity of truth could not depend on features of thinking. He was, in a way, looking for a solid ground away from subjectivity. He believed that arithmetic could be deduced to logic, and logic is the common ground between arithmetic and human language. With this paradigm, Frege studied human language, and in his *Sense and Reference*, sentence meaning over word meaning was maintained. In a way, Frege led the way in the contextualization of language. Words on their own do not have completely independent and inherent meanings; we can only talk about the meanings of words when they are used in a sentence or a context.

Frege was not the only one trying to connect formal logic and human language; Russell was also trying the same thing. He first flirted with the idea that words are used to denote objects. Then, he realized that many words in languages do not denote physical objects. For example,

the word *ghost* does not refer to a physical object, and therefore it cannot be a denotation in conventional terms. This was a topic of concern for the logicians and philosophers at that time. Russell claimed that references for such words do not exist but subsist a relative existence (Russell, 1905). This was one of the problems in formal logic. It goes back to the times of Aristotle and is related to the following law: If a proposition is true, then the opposite must be false. For example, “Socrates is dead” is a proposition, and it is true; therefore, “Socrates is alive” must be false. However, the proposition “The current king of France is bald” can neither be true nor false because the phrase “the current king of France” does not exist, which is, according to Russell, a relative existence. One might wonder how all these analytical discussions could relate to today’s language paradigms. While Frege and Russell were trying to quantify human language through propositions, some would argue that the quantification endeavor was based on shaky grounds. For example, Austin believed that not all utterances could be simplified to simple propositions. Although he acknowledged the existence of statements that could be regarded as true or false, he also believed that there are statements that are neither true nor false yet still make sense. He also proposed that people do things with language, a paradigm that later came to be known as the *speech act theory*. To him, statements that are out of the true/false classification and that still make sense could be called *performatives* (Austin, 1962). As a matter of fact, this idea, again, can be traced back to ancient Greece, Aristotle. In *On Interpretation*, Aristotle claims that human language is not only about propositions; there are statements through which we express our wishes and needs. In the same manner, Austin believed that when we see a speed limit sign in traffic, this is actually not a proposition but a warning that implicitly says “don’t go fast or you’ll have an accident”, and, in a way, the speed limit sign, which looks like a proposition, makes you do things.

Frege and Russell were primarily mathematicians and logicians and are regarded as the forefathers of analytical philosophy. Their core assumption was that if we somehow understood the logic behind sentences, we would understand the logical structure of the world; to them, philosophical problems were linguistic problems. Their ideas about human language were mainly operational in the domains of mathematics and logic; however, their perspectives and discussions about human language would constitute the basis of Wittgenstein’s philosophy of language (Beaney, 2009).

While discussions about language and formal logic were going on, Lewis Carol (1832-1898), another mathematician whose absurd ideas about language often surface in language-related discussions, expressed his ideas not through analysis but through fiction. In his famous story, *Through the Looking Glass*, Carroll sends Alice to a surreal world through the rabbit hole. In this world, everybody and everything speaks perfect and elegant English, yet Alice cannot make sense of the things said around her. Especially a character named Humpty Dumpty baffles Alice much more than others. Humpty Dumpty plays with language and tries to mock conventional ways of thinking about language.

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In their discussion of the relative merits of birthdays and un-birthdays, after Humpty Dumpty has pointed out to Alice that unbirthdays excel birthdays by a ratio of 364 to one, he caps his argument by remarking, "There's glory for you!" "I don't know what you mean by 'glory,'" Alice said. Humpty Dumpty smiled contemptuously. "Of course, you don't; till I tell you. I meant 'there's a nice knock-down argument for you!'" "But 'glory' doesn't mean 'a nice knock-down argument,'" Alice objected. "When I use a word," Humpty Dumpty said, in rather a scornful tone, "it means just what I choose it to mean; neither more nor less." "The question is," said Alice, "whether you can make words mean so many different things." "The question is," said Humpty Dumpty, "which is to be master; that's all." (Carroll, 2006)

Carroll is obviously being sarcastic through Humpty Dumpty. Humpty Dumpty is aware of the intricate and fragile nature of human language, and, maybe, more importantly, he is aware that humans do not try to confine to the conventions of language, but rather they try to shape language to confine to their own needs, interests and benefits.

Through the Looking Glass was one of Wittgenstein's favorite books (Gerlach, 2015). In his discussions about language, we can see that grammatically well-formed sentences do not necessarily need to make sense. When Humpty Dumpty says, "There's glory for you", the sentence is flawless in grammar but makes no sense at all in the context that it is used. In a way, Humpty Dumpty foreshadows the famous much-debated sentence "Colorless green ideas sleep furiously", which is also grammatically perfect but again makes no sense at all. To Wittgenstein, even in the same contexts, the same words might mean different things (Kind, 1990). This is not just one of the instances of Wittgenstein's ideas; human language was the core aspect of Wittgenstein's philosophy. He started with some fundamental and ages-old problems of philosophy and ended up analyzing human language.

Wittgenstein wanted to know the relationship between human existence and reality. When he published *Tractatus* in 1921, much like what Russell was trying to manage, he was searching for a single and universal logic. He used philosophy to describe the limits of human language. It is the scientific domain to describe the world as it is, but philosophy, through human language, is about defining the confines of reality. In order to reach this challenging task, first of all, we need to understand human language. He tried to construct a picture theory of human language with this notion in mind. As human beings, we create images of the outside world in our minds. Communication through language is actually trying to create the same pictures in other people's minds, and nobody can see the exact pictures in someone else's mind. Sometimes even we cannot see exactly what is in our minds, for that matter. Therefore, communication is basically swapping the pictures we created with the people we want to communicate with. Before Wittgenstein, Russell proposed that human language was far from perfect. Wittgenstein, on the contrary, believed that it is not human language that was imperfect, but it was the notation that we use that created this misleading point of view. That is to say, the conventional ways of addressing the outside world have flaws in them, not the language system itself. This is why it is not unusual to see people using the same word to refer to different things. Sometimes the pictures we create lack enough details or accuracy, and occasionally other people attach more

and unnecessary meanings to them. At this point, Wittgenstein departs deeply from the intellectual conventions of his period. First of all, while Plato strongly claimed that reality was outside the confines of human language, Wittgenstein regarded the limits of language as the limits of the world (Wittgenstein, 2002). In addition to this, Wittgenstein stands against the Cartesian paradigm, which regarded the individual mind as the starting point of existence. Instead of postulating the *I think* (Lat. *cogito*), he seems to be residing with its analogy, *We think* (Lat. *cogitamus*); Wittgenstein clearly refuses the existence of a private language (Sluga & Stern, 1996). Language ties people mentally, and to Wittgenstein, the focal point should be the collective creation of meaning through language.

Many would agree that Wittgenstein's first book, *Tractatus Logico-Philosophicus* (1921), was the biggest linguistic turn in history (Beaney, 2009). According to Wittgenstein, the world and language are similarly complex, and inherently, complex things have structures. When we start analyzing the world and language, we begin realizing the similarities between them. In the outside world, facts are made up of state of affairs, which are collections of objects. As such, language is made up of propositions, and propositions are made up of elementary propositions, which are made up of names. In this context, the term "name" does not refer to the actual content of words, but rather it refers to a category related to formal structures, which are the basic elements of language; to put more clearly, "a name means an object, and the object is its meaning" (Wittgenstein, 2002, p. 15), and these names do not have any individual sense unless they are a part of a proposition. Wittgenstein regarded all philosophy as the critique of language, and therefore, if we want to solve philosophical questions, we need to understand human language (Beaney, 2009).

After writing *Tractatus*, Wittgenstein believed that he had solved all the philosophical problems. In *Tractatus*, with the picture theory of language, he dwelled on human language's personal and private aspects. Later, when he returned to Cambridge in 1929, he changed this view and proposed that we shouldn't dwell on language as a picture of reality but rather on how it works; he started to see human language as a tool. He thought that how regular people use the language is a more critical issue than the function of language defining the limits of reality. To him, it was clear that people could not walk around attaching random meanings to the words they use - as Humpty Dumpty did. For language to operate, a set of rules were obviously required. By rules, he mostly meant the rules that apply to the correct use of words, and thereof left with an obligation to explain the nature of these rules. With this aspect of human language in mind, Wittgenstein proposed the concept of "language-game". Language-game was actually a new term, and as is usually the case with many philosophical terminologies, it is not quite like what it sounds. By language game, Wittgenstein was referring to people's real intentions while using language. Most of the time, the meaning that people create collectively comes from understanding which game is being played. The concept of game can be regarded as the context of the language used. Wittgenstein defines language-games as follows:

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We can (...) think of the whole process of using words as one of those games by means of which children learn their native language. I will call these games 'language-games' and will sometimes speak of a primitive language as a language game. I shall call the whole, consisting of language and the actions into which it is woven, the 'language-game'. (Wittgenstein, 1963, p. 7)

The interpretation that we could make from the language-game concept is that all miscommunications among people arise because of not knowing which game is being played. For example, when a native speaker of English says “We need to talk” to another, both of them should be aware that there is a problem that needs to be solved; so, we can say that these two are playing the talk-it-over game to solve a common problem. Therefore, good communication can only happen when people mutually realize what kind of language game is being played. Wittgenstein discusses these points in his *Philosophical Investigations*, first published in 1953. It should be taken into account that Pragmatics emerged as an independent field of study after the 1960s (Kroeger, 2018).

Wittgenstein also realized that language and life are so intertwined to a level that they work without any problems. However, when language is isolated from its context and regarded in abstract and theoretical discussions, we start losing sense of it. His famous saying, “Philosophy begins when language goes on holiday” (Edmonds & Warburton, 2012, p. 207), actually summarizes this point. Wittgenstein (2002) clearly describes his perspective on the matter as follows:

Most of the propositions and questions to be found in philosophical works are not false but nonsensical. Consequently, we cannot give any answer to questions of this kind, but can only point out that they are nonsensical. Most of the propositions and questions of philosophers arise from our failure to understand the logic of our language. (pp. 22-23)

Wittgenstein’s view on the connection between human language and philosophy is not all positive. How he regards human language could be better understood with an analogy. A philosopher approaches a chess player, points to a pawn on the chessboard and asks, “What does this piece do?”; the player answers, “It moves one square forward and attacks diagonally”. The philosopher then takes the pawn from the chessboard in his hand and asks, “Now, what does it do?” When placed in the right square on the chessboard, the pawn has a meaning and a function, but when it is removed from the chessboard, it becomes just a meaningless small object. Like the meaningful and functional setting on the chessboard and the relationships among the pieces depending on this setting, human language also needs specific tools and contexts to operate. When these tools are removed from their contexts, all the sense is lost; and according to Wittgenstein, this is precisely what philosophers have been doing over and over again for centuries.

Wittgenstein believed that the task of philosophy is “to show the fly the way out of the fly-bottle” (Sluga & Stern, 1996, p. 338). Fly-bottles are trapping mechanisms that are used to catch flies. The bottle contains a sweet liquid, and the fly enters from an opening at the bottom of the bottle. The fly feeds itself with the liquid and then tries to fly to the upper part of the bottle, to

the light, but since it is sealed, the fly is trapped inside. Wittgenstein believed that we are trapped in pointless discussions about our existence and minds like the fly in the bottle. He also thought that if there is anything inadequate or seemingly imperfect about human language, they are related to the surface grammatical forms rather than the underlying logical form. Therefore, philosophy is only practical when it tries to reveal the underlying logical form of human language. Wittgenstein's ideas were the beginning of a paradigm that would lead the systematic analysis of human language. As a matter of fact, human language as an independent field of study was already beginning to emerge after the posthumous publication of *Cours de Linguistique Générale* by Ferdinand de Saussure in 1916, and a couple of decades later, through the ideas and theories of Noam Chomsky and Steven Pinker, language discussions would take another sharp turn.

3. Discussion

Most elementary philosophical discussions about human language are based on whether knowledge is inherent in the human mind or something shaped by the outside world and our experiences. Different schools of thought have come up with varying answers to this fundamental question. During the 19th century, language discussions took a radical turn and linguistics as an independent field of study was born. Discussions in modern linguistics are out of the scope of this paper; however, it is more than necessary to see the link between language discussions in philosophy and modern linguistics. Discussions in contemporary linguistics are like extensions to the language-related discussions in the history of Western philosophy; after all, linguistics is not a fatherless child.

One of the distinguished figures of the 20th century, Noam Chomsky's works and ideas are like an accumulation of language-related discussions throughout history. Chomsky, in a way, was the resonance of the Cartesian paradigm in the 20th century. Descartes was the father of modern rationalism, which assumes reason to be the source of knowledge, and this paradigm naturally assumes that human beings possess some innate knowledge. In addition to this, Descartes' view of nature operating on mechanical and predictable terms would only falter in the domain of human language because human language was neither mechanical nor predictable in the usual sense, which gave it a *generative* power. These two Cartesian discussions actually lie at the center of Chomsky's view of human language. In his works, Chomsky firmly claims that it is a mistake to consider language as just a simple communication system. After all, when we compare the total time we speak with the total time we keep silent, the latter is definitely more than the former, at least for most of us. To Chomsky, human language cannot be regarded as a simplistic mechanism; human language is both an innate and a generative system specific to homo-sapiens.

Chomsky revolutionized language-related discussions with his theoretical concept of Universal Grammar (UG). As a matter of fact, two centuries before Chomsky, Wilhelm von Humboldt had come up with the idea that human language happens to face a truly boundless domain and

therefore, it needs to make infinite use of finite means (Duffield, 2018). The main idea was that, regardless of a specific language, human language is basically a byproduct of some universal mental system common in all human beings, the UG. Principles and parameters are part of this hypothetical UG. Principles are common features of all languages; for example, an agent is automatically assumed if there is some kind of action. In all the available and possible human languages, the question “Who did this?” is a legitimate one. On the other hand, parameters are grammatical traits that change from one group of languages to another. For example, some languages like Spanish and Turkish allow their speakers to drop the subject of a sentence by providing them with a way to indicate the agents at the morphological level. This is why Spanish and Turkish are examples of pro-drop languages. Contrarily, English and French are two examples of non-pro-drop languages in which, normally, you have no chance to not indicate the subject of a sentence without a subject pronoun.

The UG-related discussions evolved and matured over time, and Chomsky modified his views of human language through a new framework called the Minimalist Program (MP). The MP is an extension of previous studies and theories put forward by Noam Chomsky. From a Chomskyan perspective, the biggest problem to be solved about human language has always been the first language acquisition process. Like every working mechanism in nature, human language is also complex. However, the first language acquisition process across all languages seems to be surprisingly smooth and easy for children whose mental capacities aren’t ready for many other complex skills. It is often argued that children know more than they are taught (Sundqvist & Sylven, 2016), and in one of his dialogues, *Meno*, Plato asks how uneducated children could solve geometrical problems. This argument is often referred to as Plato’s problem. Initially, Chomsky tried to explain this problem by postulating levels of representation in language. He theorized a deep structure that included semantic interpretations and a surface structure where phonetic interpretations took place, and he tried to analyze human language in this framework. However, this paradigm was problematic in that its complexity did not contribute much to solving Plato’s problem. By 1970, Chomsky moved away from phrase-structure grammar and developed the X-bar theory which proposed that each phrase in every sentence produced by every normal person acts according to a core organization; this universal core organization was what Chomsky had been looking for throughout his career. By the 1990s, deep and surface structures were put aside altogether, and lexical items were brought to the forefront through the concepts of External and Internal Merge.

Chomsky (2000) notes that the MP is a research program – not a theory – investigating to what extent the language faculty provides an optimal design for the satisfaction of conditions at the interface with the sensory-motor system (PF) and the system of thought (LF). In his discussions regarding the minimalist design of human language, it is possible to see the links between his ideas and those of Wittgenstein’s and Russell; as they did, Chomsky presupposed a perfect mental universal design that meets humans’ physical and conceptual needs at minimal levels. As was mentioned above, Chomsky’s attempts to prove that humans are endowed from birth

with a device that can acquire absolutely any kind of specific human language with enough exposure could be associated with Plato's problem of knowledge; therefore, Chomsky's UG and related postulates are basically a linguistic version of Plato's speculations about knowledge as Plato believed that as human beings, we don't learn; we only remember because we are born with innate knowledge.

In line with Chomsky's innateness paradigm, another important modern figure in language discussions, Steven Pinker, suggests that human language has biological dimensions. Under normal conditions, language acquisition is inevitable for humans. Toddlers stand up and start walking when the time comes, and it is the natural course of development; this development does not have a switch-off button. Universally, language acquisition process works in the same manner; under normal conditions, we cannot switch off the language acquisition process. Once the newborn is fed with the language input from the environment, which is the "characteristics of the interpersonal surrounding within which young, language-learning children spend their time" (Lieven, 2012), they will automatically start the acquisition process. Although interaction plays an essential role in first language acquisition, it is not always a *sine qua non*. For example, there are cultures where speech is not addressed to children (see Lieven 2012 for a detailed discussion). Language is like our arms, legs or eyes; it starts operating when the time comes. To Pinker, it is an instinct; he believed that there could be a grammar gene, and the search was still going on (Pinker, 1996). Pinker's ideas had looked like speculations until a mutated gene, which was later named FOXP2, was discovered at the turn of the 21st century (Lai et al., 2001). In the late 1990s, studies focusing on the KE family revealed that 15 individuals across three generations suffered specific language-related problems (SLI) with common symptoms and primarily grammatical deficits. Although it was later confirmed that the current positive evolutionary selection of FOXP2 in humans lacked evidence (Atkinson et al., 2018), this gene is still regarded as highly essential for brain and lung development, particularly for speech and language development (Spiteri et al., 2007).

The rationalist and innatist understanding of human language, which has been consolidated through the ideas of Chomsky and Pinker, has been challenged. One of the principles in Chomsky's UG is *recursion*, and this principle states that repeated and sequential use of linguistic elements is a common trait in all available and possible languages. For example, when we say "He is here.", someone else can say, "I know that he is here." The flexibility of human language creates a possibility to hear a sentence like "I didn't realize that you know that he is here.", yet another new sentence could appear, "I am shocked that you didn't realize that I know that he is here." Theoretically, this series of sentences could go on forever, and linguistically it is called *recursion*. After analyzing the Piraha language for 20 years, Daniel Everett concluded that the Piraha language actually lacks recursion and three of Hockett's famous universal design features of human language (Everett, 2005).

4. Conclusion

Nearly all discussions about the source of human knowledge and, by extension, the nature of human language have revolved around whether they are *a priori*, meaning that humans are born with ready mechanisms, or *a posteriori*, meaning that humans obtain knowledge and language through observation and experience. There seems to be a common consensus on Chomsky's and Pinker's arguments that humans are born with innate mechanisms that enable humans to obtain knowledge and language. However, like in the case of the absence of recursion in the Piraha language, the jury is still out there about many aspects of human language.

Philosophical and scientific discussions since ancient Greece have made it clear that, at least for now, the human mind is equipped with inherent and highly integrated survival modules such as logic, mathematics, and language. However, these *survival tools* are exclusive to the human species, and therefore, they only exist with it. Although there are schools of thought that oppose the sharp distinction between the outside world and the human mind (Russell, 1983), many of the Western minds seem to have negotiated on the idea that meaning, in the traditional sense, does not exist in the outside world; it is the human mind that creates meaning and makes sense of the outside world through the use of inherent mental equipment, primarily through language (see Harari, 2017 for an extensive discussion). Its inherence in the human mind makes human language natural in everyday life. Still, when it is analyzed out of context and discussed in the metaphysical domain, it becomes a rather tricky philosophical problem to be solved. Discussions still continue, and according to Chomsky (2006, p. 11), "Honesty forces us to admit that we are as far today as Descartes was three centuries ago from understanding just what enables a human to speak in a way that is innovative, free from stimulus control, and also appropriate and coherent".

As the story goes, Humpty Dumpty was leading an ordinary and happy life until he started tampering with language. Once he realized the loose ends in language, he began manipulating them, and naturally, he had a great fall. Some pieces are either still missing or lying around, waiting to be picked up by all the king's horses and all the king's men.

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A BRIEF HISTORICAL OVERVIEW OF LANGUAGE DISCUSSIONS: FROM SHADES ON A CAVE WALL TO MINIMALISM AND THE FOXP2 GENE



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