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**ON THE PROJECT  
OF A UNIVERSAL LANGUAGE IN THE FRAMEWORK  
OF THE XVII CENTURY PHILOSOPHY**

*Language is only the instrument of science, and words are but the signs of ideas:  
I wish, however, that the instrument might be less apt to decay,  
and that signs might be permanent, like the things they denote.*

S. Johnson

By the end of the seventeenth century Europe was fully influenced by the philosophy of Renaissance which had affected nearly every field of life and aimed at the critical revision of the heritage left by the Middle Ages. The goal was to provide solid foundations for the new science based on reason and experiment. It was in that light that the issue of language had become the subject of discussion for almost every thinker of the period. According to Heinz, there were three main issues in the field of linguistics that had captured the interest of the seventeenth-century philosophy: universal language, universal grammar, and the origins of language<sup>1</sup>. The attempt to find a universal pattern remained in accordance with the general direction of the new science that aimed at simplification and logical organization of things. It was no longer that dead languages such as Latin, Hebrew and Greek could provide sufficient material for linguistic research. Natural languages, which had remained in the shadow of the dead ones, appeared on the scene challenging philosophers to establish universal features of languages, the discovery of which would lead to the discovery of a universal language, also known as a philosophical language.

The issue of language was not new to philosophy – Socrates and the Sophists were known to have raised questions as to the correctness of names, the function of speech, and the meaning of words as the concepts of definitions. Aristotle, in turn, laid the foundations of a philosophy of grammar, which was further elaborated by the Stoics. Plato stated that gods

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<sup>1</sup> A. Heinz, *Dzieje Językoznawstwa w Zarysie*, PWN, Warszawa, 1978, p. 99.

would have made people perfectly happy if they had given them one common language shared by every nation. St. Augustine in his *City of God* commented on different tongues that divided man and man. The desire for one language shared by all people was as old as the Biblical Adam who witnessed "...the whole earth was of one language and of one speech"<sup>2</sup>. That linguistic idyll lasted till the moment when the language spoken by Adam's grandchildren was taken away forever in the act of punishment when God decided to condemn people's conceit. A language understood by everybody appeared once again on the day of Pentecost when Christ's disciples and casual observers "were all filled with the Holy Ghost, and began to speak with other tongues, as the Spirit gave them utterance [...] the multitude came together, and were confounded, because that every man heard them speak in his own language"<sup>3</sup>. Grasped by so large a group, mutual linguistic understanding once again left a shadow of hope to be found and established forever.

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One of the first designers of a universal language was Claudius Galenus, a doctor, who lived at the times of the ancient Rome (200 BC). Unfortunately, his project did not survive in the course of history and all we know is that he suggested an international system of signs which was meant to enable his contemporaries to communicate easily. Another attempt to design a universal language dates back to the thirteenth century. The project was elaborated by Raymundus Lullus, a Catholic philosopher and writer, who suggested a logical classification of terms, the idea which echoed in the seventeenth century. The sixteenth century brought other projects of universal languages. One of them was proposed by Teofilo Folengo, an Italian poet, who based his language on the simplified version of Latin enriched by a number of dialect elements of Italian. Folengo put his ideas in practice and used his language to write an epos "Baldus". The idea to base universal languages on natural languages was widely used later (eg. Esperanto). In 1516 Sir Thomas Morus published a book entitled "Utopia" where he described a language used by the Utopians. Just like everything in Utopia, it was based on logic, truth and universality. Certainly, the above-mentioned projects were not of minor interest in search for the hidden key to the universal language but it was not until the seventeenth

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<sup>2</sup> Genesis, 11:1

<sup>3</sup> Acts, 2:4 – 6

century that the issue of a universal language came into scope with serious attention<sup>4</sup>.

The need for a universal language advanced together with the development of trade routes, missionary works and colonization. Further economic progress depended on communication with people who not only spoke different languages but also had little to do with Latin or Greek. The possibility of having one international language was further provoked by the discovery of written Chinese used in the Far East as a means of communication by people whose natural languages differed greatly<sup>5</sup>. For the seventeenth-century philosophers it was clear that spoken languages with their developed system of phonograms remained out of question to fit a universal pattern, whereas the ideal was “a written language constituted by a new system of ideograms which could also be spoken.”<sup>6</sup> Thus the seventeenth-century philosophers saw a universal language not only in terms of the Utopian dream but also as a necessity on which both the economic progress and the development of science depended.

Among the thinkers of the seventeenth century Francis Bacon (1561–1626) was the first to introduce a programme for the construction of a universal language. In his *Essay on the Dignity and the Advancement of Learning* (1605) Bacon proclaimed his beliefs that all languages, oral and visual, were means of conveying thoughts between men. Troubled by the fact that the existing system of communication had become inadequate, Bacon intended to invent one language where each word would carry a clear meaning. In *De Augmentis Scientiarum* (1623) Bacon distinguished between two types of grammar: *grammatica litteraria* and *grammatica philosophica*. According to him, logic was *traditiva*, whereas language was seen as a transfer of thoughts: *vehiculum cogitationum*. Therefore, a universal language as seen by Bacon depended on the inductive comparison between grammars of different languages in search for the most perfect elements. Those perfect elements were to be summed up and further organized into one system. Bacon saw words as “the tokens current and accepted for conceits, as moneys are for values.” The system of his language would be analogous to that of the Chinese language where “real characters [...] express neither letters nor words, but things or notions.”<sup>7</sup> Bacon’s optimism for the project found

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<sup>4</sup> For more information about the projects see Marian Jurkowski, *Od Wieży Babel do Języka Kosmitów*, Krajowa Agencja Wydawnicza, Białystok 1986.

<sup>5</sup> J. Cohen, *On the Project of a Universal Character*, in *Mind, a Quarterly Review of Psychology and Philosophy*, Vol. LXIII – 1954, p. 51.

<sup>6</sup> *Ibid.*, p. 51.

<sup>7</sup> See J. Cohen, *On the Project of a Universal Character*, p. 51.

expression in his statement that “any book written in characters of this kind can be read off by each nation in their own language.”<sup>8</sup>

Francis Bacon was soon followed by his secretary, Thomas Hobbes (1588–1679), who also tried to elaborate on the project of a universal language. Being under strong influence of Galileo, Hobbes tried to apply the principles of calculative methods to the process of acquisition of knowledge. Instead of Galileo’s mathematical symbols in his universal language Hobbes suggested the application of natural words used as artificial symbols, the idea which was later developed by Leibniz. Hobbes was also interested in the origins of language. It is necessary to mention here that the majority of the seventeenth-century thinkers accepted the monogenetic hypothesis according to which all the languages were based on the original language which, due to the natural division of peoples and land, developed itself into dialects which later developed into independent languages<sup>9</sup>. For him, the ideal was to find the lost *lingua adamica* which, according to him, was the original language and would be the key to the perfect understanding between people.

The ideas of John Locke (1632–1704), another Enlightened thinker of the century, were of great importance when it comes to the development of language. Locke was interested in the language as in the means of communicating human thoughts. He tried to show how language was used to represent ideas as communicated to others. In his *Essay Concerning Human Understanding* (1690) he put forward the idea that man was created by God to live in society and was therefore equipped with the language which was to be “the great instrument and common tie of society”<sup>10</sup>. According to Locke, man was not given a complete language: man was only created capable of articulating sounds. To “activate” a language, it was not enough to combine sounds into words. What was an essential condition for words to become a language was the need for words to represent “internal conceptions” of ideas. To put it differently, man cannot understand a word for which he has no idea. By using words for which we have clear ideas attached we will prevent our language from being abused. For him, words became sensible marks of ideas that stood behind the words being their signification. Thus Locke was the first among his contemporaries to connect understanding with the analysis of human mind.

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<sup>8</sup> Ibid., p. 51.

<sup>9</sup> M. Jurkowski, *Od Wieży Babel do Języka Kosmitów*, p. 10.

<sup>10</sup> J. Locke, *An Essay Concerning Human Understanding*, in *The Philosophical Works of John Locke*, ed. J. A. St. John (London 1996), Vol. II, p. 1.

René Descartes (1596–1650), although not primarily interested in the issue of language, also commented on the project of a universal language. In 1629 a leaflet written by Hardy appeared. The author of the leaflet presented a project of a universal language. Unfortunately, the leaflet did not survive and the information preserved is based on the few comments Descartes made in his letter to Mersenne. Hardy claimed that his language would be simple enough to enable an average student to produce short sentences with the help of a dictionary within few days. Such a language would possess no irregularities and could be used by an average person. Descartes was sceptical as for the language presented by the author though he thought it was possible. According to him, the first step towards such a language was the discovery of the true philosophy which thoroughly described reality. Thus, a universal language would be a natural consequence of the true philosophy. Such a language would reflect thinking processes and its construction would depend on the following steps: discovery of elementary ideas in mind, natural order of the ideas and assembling each elementary idea a word<sup>11</sup>. Like Bacon, Descartes highlighted the role of the method applied. In his *Discours de la méthode* (1637) he commented on the role of method as being the most decisive aspect when discussing true knowledge. The method seen by Descartes as the only possible was to be analytical, aiming at the primitive concepts, and mathematical.

Triggered by Descartes' comments on the issue of a universal language, Gottfried Wilhelm Leibniz (1646–1716) took a stand claiming that “although this language depends on the true philosophy, it does not depend on its perfection”<sup>12</sup>. He made a further point that such a language could be established regardless of philosophy's imperfection and develop itself further into real knowledge. Leibniz highlighted a close relationship between languages and thought seeing the language as a mirror of the intellect<sup>13</sup>. Therefore, language is subordinate to reason and to create a universal language it is necessary to follow the rules of reason. For Leibniz, a universal language (*characteristica universalis*) is a kind of human thoughts' alphabet by analysing which one could discover practically everything whereas a pattern of such a language was revealed in the language of mathematics<sup>14</sup>. Leibniz's *lingua universalis* was based on “universal mathematics”. He claimed

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<sup>11</sup> J. Kopania, *Funkcje poznawcze Descartesa teorii idei*, Białystok, p. 191.

<sup>12</sup> G. W. Leibniz, *Opuscules et Fragments Inédits de Leibniz*, C, p. 28.

<sup>13</sup> H. Święczkowska, *Harmonia linquarum. Język i jego funkcje w filozofii Leibniza*, Wydawnictwo Uniwersytetu w Białymstoku, 1998, pp. 31–38.

<sup>14</sup> *Ibid.*, pp. 137–139.

that thinking could be perceived as counting, correct thinking meant correct counting provided the signs used were as clear as those used in mathematics. Leibniz went further in his praise for mathematics suggesting devising a calculus operating on the formulae of the language. To achieve that goal, it was necessary to elaborate an adequate system of symbolism, something which Leibniz never did though constantly urged others to do so. As for Leibniz's concern with the origins of language, it was to some extent provoked by John Locke whose *Essay concerning Human Understanding* was followed by Leibniz's counter essay entitled *Nouveaux Essais sur l'Entendement Humain par l'Auteur du Système de l'Harmonie préétablie* written in 1704. He disagreed with Locke on several points. Unlike Locke, Leibniz supported the monogenetic hypothesis and stated that all existing languages were descendants of a single mother tongue – *lingua adamica*, which, due to the migration, developed into numerous daughter languages. A thorough analysis of the natural languages would enable researchers to come closer to the lost *lingua adamica* and perhaps reconstruct it<sup>15</sup>.

While discussing the projects of universal languages in the seventeenth century it is worth mentioning that all of them are thought to be influenced (at least to some extent) by the ideas of Bacon and Descartes. J. Cohen divides all the projects that the seventeenth century was rich in into two types: the Baconian one and Cartesian one. According to him, all projects were granted on either of the two types. While mentioning the projects of the Baconian type, it is necessary to highlight the characteristic features of his project. J. Cohen compares the language of this type to “the modern international code of nautical signals” and describes it as “not a mere cipher of limited applications”<sup>16</sup>. Many researchers point out that there was little about mathematics in Bacon's project which Ward, Bacon's contemporary, explained by the fact that Bacon was not simply skilled at it<sup>17</sup>. Nevertheless, his project served as a guideline to many of his contemporaries, just to mention William Bedell, Bishop of Kilmore, Vos & Herman Hugo, Philip Labbé and Edward Somerset, the second Marquis of Worcester. Unfortunately little is preserved as far as their projects are concerned with the exception of Philip Labbe and Cave Beck whose project appeared in 1657 entitled *The Universal Character, By which all the Nations in the world may understand one another's conceptions, reading out of one Common writing their own Mother Tongues*. In his project Beck proposed a universal sys-

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<sup>15</sup> Ibid., pp. 129–154.

<sup>16</sup> J. Cohen, *On the Project of a Universal Character*, pp. 52–53.

<sup>17</sup> Ibid., p. 56.

tem of writing putting the Ten Commandments in his alphabet. Thus, the written commandments become the combination of letters and numbers. As far as Labbe's project is concerned, it was based on the simplified form of the Latin grammar deprived of all irregularities. The project was entitled *Grammatica linguae universalis* and published in 1650. Interesting is the fact that Leibniz was under impression of Labbé's project claiming that Labbe's universal language was easier than Latin and more regular than *Lingua Franca*<sup>18</sup>.

As for the Cartesian type of a universal language, which fully relied on the basics of "true philosophy" and simple notions, we can distinguish the following names: F. Lodwick, a London merchant, J. A. Comenius, the Czech educationalist, Sir Thomas Urquhart. F. Lodwick wrote two books on the subject: *A Common Writing, whereby two, although not understanding one the other's language yet by the help thereof may communicate their minds one to another* (1647) and *The Groundwork, or foundation laid (or so intended) for the framing of a new perfect Language and a universal or common writing* (1652). Unfortunately little is known as for the details of his project. John Amos Comenius (1592–1670) was concerned with the invention of a universal language of science which would enable educationalists to pass their knowledge to the people of different nations. He claimed that "the framers of the new language shall rather follow the guidance of the things themselves, since everything in our new language must be adapted to the exact and perfect representation of things"<sup>19</sup>. As a result, such a language with its harmony would be comparable to Nature enabling to teach new things in a totally new way. What Comenius proposed was a strictly defined system of meanings which would match different combinations of phonemes<sup>20</sup>. Letters represented symbolism and were combined according to the symbol they denoted. Worth mentioning is the fact that the universal project proposed by Comenius revealed some features of the Czech language.

As J. Cohen mentions<sup>21</sup> Urquhart (1611–1660) was the only seventeenth century thinker who based the project of a universal language on phonograms. His system was presented in the book entitled *Logopandecteisio or an Introduction to the Universal Language*. According to Urquhart, every letter of every word in his project of a universal language was to express

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<sup>18</sup> M. Jurkowski, *Od Wieży Babel do Języka Kosmitów*, p. 23.

<sup>19</sup> See R. Frazer, *The Language of Adam*, Columbia University Press, New York, 1977, p. 45.

<sup>20</sup> M. Jurkowski, op. cit., p. 27.

<sup>21</sup> Ibid., p. 55.

a defined idea. Thus the meaning of the concrete word would already be present in its written form<sup>22</sup>.

While discussing the projects of a universal language based on the Cartesian philosophy, it is necessary to mention the name of Seth Ward (1617–1689), a professor of astronomy at Oxford and later Bishop of Salisbury, who elaborated on Descartes' idea of simple notions. Although Ward never produced a universal language by his own, in the 1650s it was “felt that Ward was very close to completing the design of a universal character”<sup>23</sup>. All he published on the subject was a brief section in *Vindiciae Academicarum* which appeared in 1654 and presented the readers with the “programmatically statement of principles concerning a philosophical language”<sup>24</sup>. George Dalgarno and John Wilkins soon followed him and took the pain of developing Ward's ideas into details. Dalgarno published *Ars Signorum, vulgo Character Universalis et Lingua Philosophica* in 1661 where he claimed that he had discovered a logical analysis which represented the normal articulation of human thought. What is interesting about Dalgarno's project is the claim that his universal language could be used for conveying knowledge by the dumb and deaf<sup>25</sup>.

John Wilkins (1614–1572) in his vision of a universal language was concerned with the role of an artificial symbol system in the investigation of reality. His *Essay Towards a Real Character and a Philosophical Language* was published in 1668 though it is thought to have been finished by 1665. Most of the manuscript was destroyed in the Great Fire and what was printed two years later was the reconstruction of the parts saved. In the essay Wilkins proposed the division of terms into six categories which were later divided into sub-categories so that it was possible to attach a logical sequence of letters to match each category. Looking at the written form of the word, one could easily reconstruct the meaning of it and vice versa. It is worth mentioning that Wilkins put his project into practice – he used his language to communicate with Robert Boyle who was his friend from Royal Society<sup>26</sup>.

Another important thing Wilkins was credited for was his distinguishing between grammars of two kinds: natural and general, and instituted

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<sup>22</sup> Unfortunately, most of his manuscript was lost at the battle of Worcester in 1651.

<sup>23</sup> D. Cram, *Universal Language, Specious Arithmetic and the Alphabet of Simple Notions* in *Beiträge zur Geschichte der Sprachwissenschaft*, 4.2 (1994), p. 214.

<sup>24</sup> *Ibid.*, p. 226.

<sup>25</sup> His work *Didascalophus, or the Deaf and Dumb Man's tutor* was published in 1680.

<sup>26</sup> M. Jurkowski, *op. cit.*, Białystok 1986, p. 29.

and particular. Wilkins stated that Natural grammar or, in other words, philosophical and universal, had been neglected when compared to that of the instituted and particular kind whereas “it should contain all such Grounds and Rules, as do naturally and necessarily belong to the Philosophy of letters and speech in the *General*”<sup>27</sup>. Therefore, his project of a universal language was a step towards the development of the grounds of a philosophical grammar.

The popularity of Cartesian philosophy triggered the research of a philosophical grammar. By the end of the seventeenth century studies of grammar had already become a popular activity among the philosophers. As it was mentioned before researchers were driven by the need to find universal features of natural languages. Claude Lancelot and Antoine Arnauld collected their thoughts about a universal grammar in the book entitled *Grammaire générale et raisonnée de Port-Royal*, the book which marked “the apex of (philosophy of language) evolution in the general grammars of the seventeenth and the eighteenth centuries”<sup>28</sup>. In their book they showed that there was a need to create a universal grammar which would follow the thinking processes of the mind<sup>29</sup>. Such a grammar would be universal and rational, in other words, applicable to all languages. To discover the truth about language, the grammarians of Port-Royal arrived at the conclusion that grammar is completely subordinated to logic. Since there is one logic for all mankind, it is natural to assume that there is one general grammar for all languages. They define grammar as an art of speaking. Speaking, in turn, is an art of translating our thoughts with the use of signs. Since thinking structures are stable and unchangeable, all languages are governed by the same universal rules. The discovery of those rules would lead to the discovery of a universal language. Arnauld and his followers adopted a completely rational approach to the formation of language trying to show that language can be explained rather than observed. The *Grammaire de Port-Royal* enjoyed great popularity till the beginning of the nineteenth century. It was not until 1957 that it was brought again on a linguistic scene by N. Chomsky whose thesis concerning generative grammar echoed some of its fundamental features<sup>30</sup>.

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<sup>27</sup> See *History of Linguistic Thought and Contemporary Linguistics*, (ed.) H. Parret, WdeG, 1976, p. 90.

<sup>28</sup> T. Sharadzenidze, *On the Two Trends in Modern Linguistics*, in *History of Linguistic Thought and Contemporary Linguistics*, (ed.) H. Parret, WdeG, 1976, p. 71.

<sup>29</sup> H. Święczkowska, *Idee ogólne i jednostkowe w “Gramatyce” i “Logice” z Port-Royal*, in *Idea – Studia nad strukturą i rozwojem pojęć filozoficznych*, Białystok 1986, p. 43.

<sup>30</sup> N. Chomsky, *Cartesian Linguistics*, Harper & Row, New York & London 1966, p. 76.

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As we have seen, the seventeenth century was a turning point in the field of science. Intensive research in the fields of science and philosophy was an immediate answer to the outgoing changes in the economic and social life in Europe. It was in that light that the issue of a universal language captured the minds of the seventeenth-century philosophers provoking them to find the key to mutual understanding once lost at Babel. Numerous projects appeared proposing philosophically supported systems of a universal character. Only few of them were based on clear concepts and systems which could meet the requirements of the notion of universality. None of them was accepted as the truly universal language. Although the seventeenth century failed to find the key to the linguistic paradise with its mutual understanding, the above-mentioned projects belong to the first and undoubtedly the most important wave of the ideas which have never stopped to serve as a guideline in search for a universal language. Pieter V. Verburg<sup>31</sup> claims that Leibniz's century was the beginning of the philosophical thought of Wolf, Kant, Humbolt and Bopp whereas the Cartesian universal principles of language structure found their way in the transformational grammar as presented by Chomsky.

Today the search for universal languages is conducted in the framework of interlinguistics which deals with artificial languages and aims at their development, classification and evolutionary and futuristic research. The geography of interlinguistics covers such countries as the USA, France, Italy, Japan, Russia and many others. Among the interlinguists who are among the promoters of the idea of a universal language are Otto Jespersen, Roman Jakobson, Baudouin de Courtenay and Andre Martinet. Now there are about seven hundred projects of artificial languages among which we can distinguish such projects as Volapük, Esperanto, interlingua IALA, computer languages and many others<sup>32</sup>. As for now, it has proved impossible to find one universal language which could be based on the categories discussed in this paper and meet the expectations of an average person. The answer to this failure may be hidden in the false assumption made by the seventeenth-century thinkers that one language may serve as a language of science and literature simultaneously. Although the scientific progress we witness day

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<sup>31</sup> P. A. Verburg, *The Idea of Linguistic System in Leibniz*, in *History of Linguistic Thought and Contemporary Linguistics*, (ed.) H. Parret, WdeG, 1976, p. 614.

<sup>32</sup> M. Jurkowski, op. cit., p. 7.

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by day has undoubtedly driven us far away from the day of Pentecost, we still share the same Utopian dream of finding one common language which would enable mutual linguistic understanding. The key to the reconstruction of Babel still remains to be found.