

WUT 2020
10th International Conference “Word, Utterance, Text: Cognitive, Pragmatic and Cultural Aspects”

IMPLEMENTATION OF SOUND OPPOSITION IN CHILDREN'S SPEECH

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Abstract

Problems of children's speech are considered in pedagogy, psychology, and linguistics. With the advent of new technologies in recent years, new approaches have been proposed in research on the development of sounds by children, the formation of adult speech and bilingualism in children. The works of some scholars are devoted to sound opposition in children's speech. In our opinion, the very first such (archetypical) opposition related to binarism exists in the babble speech of children and this is a combination of the consonant $\text{H-}\eta$ ($\text{H}\eta\text{a-n}\eta\text{a}$) and the vowel ə (oa , $\text{o}\text{ə}$, ae), then other sound oppositions appear. In the babble speech of children, each of the sound oppositions K-G (k-g), T-D (t-d), P-B (p-b), M-Y (m-w), H-L (n-l) appears simultaneously and instinctively, albeit in a certain sequence. These consonant sounds are common and universal for all languages, and on the basis of precisely these sounds, words common to all languages are formed (mama [$\text{m}\text{ə}\text{m}\text{ə}$], baba [$\text{b}\text{ə}\text{b}\text{ə}$], tata [$\text{t}\text{ə}\text{t}\text{ə}$], dada [$\text{d}\text{ə}\text{d}\text{ə}$], nana [$\text{n}\text{ə}\text{n}\text{ə}$]). The existence of natural sound oppositions and their unconsciousness allows us to hypothesize that language is an instinctive phenomenon. This is confirmed by numerous mythological, symbolic, graphic, ethnographic, archaeological materials cited in various studies in different languages at different times.

2357-1330 © 2020 Published by European Publisher.

Keywords: Sound, binary opposition, sound symbolism, babble, children's speech, etymology.



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1. Introduction

In connection with the appearance of new tools in modern linguistic science, new opportunities for studying the baby's speech have appeared. For example, PRAAT (Boersma & Weenink, 2015). Elmlinger, Schwade, and Goldstein (2019) after examining the infant's babble uses the PRAAT program to determine the acoustic parameters of the parents. Current researches examine disyllabic babble in the child's language (Clerck, Pettinato, Verhoeven, & Gillis, 2017), the role of biomechanical restrictions in initial words (Lahrouchi & Kern, 2018), babble of infants raised in bilingual environments (Andruski, Casielles, & Nathan, 2014), the course of transition of children with hearing disorders to speech (Moreno-Torres, 2014), the presence of children with speech disorders substrate, effect (Marschik, Kaufmann, Bólte, & Sigafos, 2014).

1.1. Babble-opposition pair

Sound phenomena in children's speech are increasingly attracting the attention of scientists in the field of pedagogy, psychology, linguistics, and others. Even there is a great interest from scientists involved in the origin of the human language. In his work "The Origin of language. Facts, research, hypotheses" Burlak (2019) gives this opinion: "hypotheses were expressed different, even the most fantastic, in which the formation of language in a child is recognized as an exact copy of glottogenesis-up to the indication of the time scale (how many thousands of years ago appeared)" (p. 7). That is, the assumption that the child's development process repeats phylogeny is one of the modern views about the development of speech in a child. And this is the case because some sound phenomena in the child's language (which we observe) are repeated exactly as in phylogeny. Especially when sounds come out, there is a certain pattern. We believe that these laws are the only means that can help scientists involved in the development of speech in children. For example, in Turkology, one of the unexplored topics, starting with Radloff (1882), is which sound is the archetype of all sounds. One of the scientists Radloff (1882), etc.) says the sound of й at the beginning of the word, while others (Ramstedt (1957), etc.) believe that the first sound is дж (dzh). For example, according to these scientists, the word жок, in the Kazakh language in the ancient Turkic, then in the Altai era sounded like йок or джок (Khassenov & Adilova, 2019). When a child pronounces the word zhok (жок), he pronounces it as дж. Then зок or дзок, the sound ж in the word жок appears at the age of 3-4 years. At this age, a clear pronunciation of the Kazakh sound of к is formed. Then you can view the sound matches д > дз > з > ж. That is, you can use this data to generate a diagram of the occurrence of sounds. Therefore, infant's babble is a particularly relevant problem that requires research. Infants' babble is the basis for the emergence of sounds, some kind of storage. The first sounds are developed and formed in infant's babble. They have their own sequence and the opposition pair. The article will prove that the basis of these oppositions is the 'Һә' (Һа), which will be clarified on mythological, symbolic, and other examples.

2. Problem Statement

In his work "Fundamentals of phonology" Trubetskoy (2000) showed several types of phonological oppositions. Jakobson (1985) brought their number to 12. We believe that it is appropriate to

include archetypal or natural opposition in this list. Natural opposition is the sound pairs that exist in the infant's language. These pairs appear in a certain sequence, first of all, in the baby's speech. Infant speech researchers did not pay close attention to this issue. For example, in the work of such scientists as Jacobson (1985), although sound oppositions are mentioned in children's babble, these mentions of oppositions in children's babble are shown superficially. As it is known, infant's speech development is the focus of attention of many scientists. And all scientists recognize that there are general patterns of speech development. Jacobson (1985) points to the appearance of a chain of paired consonants in the baby's speech as follows: 1. nasal-oral; 2. labial-dental (lingual); 3. plosives-fricatives; 4. hard-soft; 5. rare contrasts in the languages of the world. In our opinion, the very first oppositional pairs and sounds in the infant's speech are *н* and *ә*. That is, a pair of consonants and vowels. In the works of Vinarskaya and Bogomazov (2005), the opinions of several scientists concerning the scream of an infant are presented. The spectrographic study of Lyakso (1998) shows that the child utters the sounds *a* and *ә* in the first months, and these sounds are not found in the speech of an adult. In fact, it is not possible to describe in detail the various sounds in the infant's speech (Vinarskaya & Bogomazov, 2005). However, there are sounds that are clearly audible to our ear. In our opinion, the first sounds are *н* and *ә*. In Turkic languages, the first words of a child are characterized by these sounds: for example, in Kyrgyz *ыңаала, ыңгаала, сгу 'нга-нга!*' (about a crying baby), in Turkmen *иңә-иңә* imitation of crying baby, *иңәбәбек* baby, infant; in Yakut *һаах* imitation of the squeak of a small animal, a child; in Uzbek *иңгала сгу* (about a newborn), cry (about a baby). In Kazakh language, it sounds *'иңә'*.

3. Research Questions

When the infant's consciousness begins to form, he/she begins to divide people into woman and man. The baby starts calling all men as dad, and women as mom the baby starts calling the brother dad, and then dad-older brother (*папмара*). It was also noted that the division of people into older and younger was recorded in their drawings. For example, when a girl who is under our supervision draws her father in the drawing he looks bigger than others, and the younger sister of the mother looks small. In the child's understanding, the father is strong and big, and the mother is not strong and small. That is, the development of his/her understanding, consciousness, and formation is based on the binary opposition of the male and female character, large and small, strong and weak.

Based on materials compiled by Kellogg (1969), the image of a mandala or circle is often found in the visual arts of preschool children:

At the beginning, a two-year-old child simply draws scribbles with a pencil or crayon, soon his attention is drawn to the intersection of lines, and he begins to draw crosses. Then the cross is placed in a circle, and we get the original model of the mandala. When a child tries to draw human figures, they, contrary to visual perception, are obtained in the form of circles with arms and legs, depicted in the form of ray-like extensions of the circle (p. 57).

Children's drawings and scribbles are very similar to the drawings of our ancestors, carved on stones. The circle is a symbol common to humanity. It is a symbol of being. A person is in a circle until

he becomes a person. The uterus of the mother, the earth, the cosmos, everything represents the circle. The symbol of psychoanalysts, called the mandala, represents integrity, harmony. Then the child can repeat the traces that humanity has committed over the centuries, come along the same path. If a child's knowledge of the world is similar to ancient people, then the development and formation of children's speech should also be associated with primitive concepts. The child's tongue also appears on a binary basis.

3.1. About the first sound of humanity

A baby is born with a cry. The crying of a child is called a scream. In Turkic languages it sounds like *иңгә* in Kazakh, *ыңала* in Kyrgyz, *ингала* in Uzbek. Having recorded the child's first cry on the recorder, we found out that he is making a sound *ңә*. Indeed, the child is born with the sound of *иңгә* (*ңә/иңгә*). The first sound of the child is 'ңә' (*nga*). Mythologist Kondybay (2004) based on these sounds made his etymological, mythological reconstruction. For this, the scientist used a symbol with a dot inside the circle. In ancient Turkic writing this symbol is a symbol of the sound phrase  NT and the sound 'D' (*H*). It is known that this symbol represents the sun. . And according to R. Genon (as cited in Kondybay, 2004), the image of the Sun is only part of the original symbol ("that from the point of view of ancient traditions, the sun itself is only a symbol, a symbol of the genuine 'Center of the World', which is the Divine Principle"). Kondybay (2004) used this concept in the interpretation of myths, words. The mythologist calls a symbol with a dot inside a circle, the sound – *ң*. That is, the name of both the circle and the dot are called *ң*. Mythological meanings of the dot: light, source (origin), extreme times (5-6 days in ancient calendars were considered a separate month, not related to 12 months), the germ, seed, navel, etc. Mythological meanings of the circle: the world descended from the light, the Universe, 12 months, the world ocean, the womb, etc.

In tales and legends, there is often a motive about lowering the baby into the water in a reed basket or a wooden barrel. If to explain from the point of view of the symbol, then the circle is a symbol of the mother, the womb of the woman. And the dot in the center is the symbol of the fetus. Another detail found in legends is a basket, a barrel made of wood. According to mythical knowledge, a tree is associated with a woman. The tombs in the necropolis are made of wood (most often spruce, juniper) which represented the womb of the mother. Ancient legends speak of the existence of life in the other world. It was believed that a person buried in a wooden coffin would be resurrected in another world. And the fact that Jesus was buried in a wooden coffin carries the motive of death and resurrection.

We believe that the famous myth of Noah is known to all. The mythologist, scientist Kondybay (2004), contrasted these images with the images of *Nga*, *Enki* . The Prophet Noah creates an ark to save humanity from the Flood. The ark is a symbol of the womb, and Noah is inside – the symbol of the fetus, the embryo of the future of humanity. In the Kazakh language, the words 'dot' (*һүкте*), 'base' (*һерізі*), *nyga*, *nygyz* (capping something) and Noah (*Һүк*) are similar to each other both in form and meaning, and all connected with a dot. The word *һүк* means soothing, and Kondybay (2004), due to the fact that Noah saved people from the global flood, suggested that it means the savior of mankind. Parallel images of the prophet Noah - *Nga*, *Enki*. The connection of these characters with the water element, the creation of man, and their names bring these images together. Both *Enki* and *Ngi* are in the center of the

underground water. They are the gods of groundwater. Their symbols are also characterized as dots. We talked about the fact that a child is born into the world with the sound of нґә. The word нґә, associated with the first sound of a newborn, is present in the names of such characters as Enki, Nga. If to represent the word нґә only by consonants it will look like нґ (нґнґ). This may indicate that the first sound of the newborn baby 'нґә' (nga) is a mythical name. The name of the dot (the dot in the circle) accurately describes the name of the prophet and the gods. And harmoniously in mythological sense.

The mythical characters we are talking about have mothers. According to Sumerian mythology, the mother of Enki Nammu. Nammu is mother of primal waters, creator of heaven and earth, mother. Mother Nga Num is also the main Tengri in Samoyed mythology. If you notice, they mean the circle of the sign. In addition to the opposition of the mother-child, they are also associated with earthly and heavenly binarism. Enki, Nga are underground rulers, and Nammu and Num are rulers in the sky. The heavenly world is usually associated with pleasant images, while the underworld describes unpleasant images. And the fact that at the beginning complemented each other's images begins to have opposite meanings.

This directly relates to the meanings of the symbol of the circle and point. The goddess Nammu and Numa coincides with the God of the Turks Umai. The word ұма means a friend of a newborn. That is, she is the patron of a newborn baby. Umai-mentor and patroness of a young daughter-in-law, family, land. Indicates a circle in a symbol. At the same time, initially the words of Num, Nammu, Umai can describe the sound of a child – Nga. That is, the first sound of the baby was turned to the mother. For example, the Masai tribe of Africa call their heavenly god Ngai (Engai).

3.2. Sound symbols

Symbolism is an association of certain perceptual sounds and stimulus by semantic elements of phonemes (Shlyakhova & Tashkinova, 2019). Jespersen (1933) wrote that he investigated some words and said that very often met words with the phoneme 'i' with the meaning 'small'. The participants in the experiment of Sapir (1929) came to the conclusion that the words 'mil' and 'mol' that have no meaning are associated with the concepts of small and large. Newman (1933) in a similar way studied vowels and consonants, words meaning 'big' and 'small' in English. Now scientists have experimented with sounds in several languages. For example, Miron (1961) writes that English and Japanese equally evaluate vowels and consonants. If the front sounds are associated as weak, small, positive, then the back sounds are strong, large, with a negative value. Nowadays there are a lot of research works about sound symbolism (Auracher, 2017; Bankieris & Simner, 2015; Dingemanse, Blasi, Lupyan, Christiansen, & Monaghan, 2015; Dingemanse, Schuerman, & Reinisch, 2016; Lockwood & Dingemanse, 2015; Lockwood, Hagoort, & Dingemanse, 2016; Perry, Perlman, & Lupyan, 2015; Preziosi & Coane, 2017; Sidhu & Pexman, 2018; Thompson & Do, 2019; Walker, 2016).

Acoustic-articulation features of sounds distinguish the meaning of words. For example, in the human mind the concept is formed that words with sounds *и, ы* mean something small, and the ones with sounds *а, о* denote something big. For example, words formed from the words *тақ, тоқ, тық, дік* mean strong-weak. The Kazakh people have a fairy tale 'Тоғыз Тоңкылдақ, бір Шиңкілдек'. After examining the Genesis of Kazakh everyday tales, E. Tursunov says that under this tale the opposite of two social

seams was observed. It is important for us that the names of the characters in this fairy tale coincide with the sound opposition of a strong-weak opposition. The meaning of sound o in the word тоңқ is strong, large, many (тоңқ is the word imitation), and the meaning of sound i is lonely, weak (as in the word Шінк). And this name also coincides with the concept of a dot and a circle. O – circle (large), I – dot (small). During the investigating on about 4298 languages words with sound ‘i’ (thin sound in Kazakh language speaks as iy in English language) and gives the meaning ‘small’ (Blasi, Wichmann, Hammarström, Stadler, & Christiansen, 2016). In sound symbolism, labial sounds represent spherical, circular concepts. Khusainov (1988), taking as an example the words борби (swell), бөрт (swell, swell), дөңгелек (round), etc., came to the conclusion that they all carry a meaning connected with a circle or a round shape and connected this with the fact that the composition of these words has labial sounds, in the pronunciation of which the lips are rounded and this phenomenon is found not only in the Kazakh language, it is also characteristic of the system of other languages (Khusainov, 1988). We have said above that the words Нум, Намму came from the word Hra. It is possible that the word Nga changing to Ngam> Nam> Nammu could mean a circle

4. Purpose of the Study

The main goal of the article is to show that the child’s first sound is the sound нә (Hra), to reveal the cognitive nature of baby’s babble, as well as the fact that sound opposition is the basis.

5. Research Methods

The article used methods such as comparison and analysis. As the material of the study, legends were used. Three children were monitored (two girls, one boy), an analysis was made of the characteristics of the occurrence of sounds.

6. Findings

Binary opposition is a common symbolic category, continuing from the moment of the formation of human civilization. Its appearance can be observed from the primitive communal society, in myths and art. The difference between the oppositions male-female, mother-child, strong-weak, etc., giving it a name is associated with the symbolism of sound, as well as with the acoustic-articulating features of sounds. And they all begin with the babble of the baby, which is formed unconsciously. Baby’s babble is based on harmony. For example, baby’s babble containing the sounds дэдә, тәтә, әтә, пәпә, бәбә, мәмә, әпә, әwә has the correspondence. For example, the sound m in babble forms a syllable only with the sound m. The sounds d and t or k and g appear simultaneously, along with paired sounds, and all the words in babble are used in most modern languages (in the form of ата, мама, баба, папа, апа, etc.). All of them appear during the formation of the child’s consciousness, as he grows up, he uses them as ready-made words. The appearance of baby’s babble is an instinctive phenomenon, such as the search for breastfeeding, nutrition.

A baby's speech is a condensed picture of a person's language. What sounds could Homo Sapiens make? This is a difficult question. Considering the similarities in the drawings, knowledge and speech (babble) of the child and the general similarities in the art of ancient people, we came to the conclusion that the ancient people also used and pronounced the words that are heard in children's babble, since ontogenesis, although brief, repeats phylogenesis. In other words, both speech and image are repeated. The art of drawing as well as the development of speech in children are adjacent to the initial knowledge of the world.

7. Conclusion

Thus, in recent years, interest in the study of the speech of the child has increased. And if some scientists use materials on the baby's speech to clarify predictions regarding the origin of the language, others use when studying the problems of bilingualism, monolingualism. Currently, the objects of research are the causes of various deviations in the child's language (for example, aphasia). Our research was carried out at a multidisciplinary level and covered the time of development of the speech of the child. While this gap was a period of babbling, it encountered some linguistic facts. This is a binary phenomenon. Scientists, researchers of the binary opposition, say that this phenomenon is a universal phenomenon. In the work, we analyzed materials, ideas in various fields of science, found that this phenomenon is associated with the development of speech. In foreign and domestic linguistics, the term 'sound symbolism' has developed. Sound symbolism was comprehensively studied in Soviet times. However, scientists dealing with this issue use only linguistic, psychological, physiological materials in their studies, showing the opposition 'very weak', 'good-bad', etc., when determining the etymology of speech, they were limited only by acoustic-articulatory features. We presented a new model (project) of speech restoration in combination with mythological, folklore data in the disclosure of the symbolic meaning of sounds. And they described a common symbol – a circle and a point, which all opposition pairs summarize.

It is known that man went through a long evolution. If mythology, psychology and physiology of man have similarities, then language has a common universal phenomenon. This universality is also in the speech of the child. In our opinion, the phenomenon of binarism in the speech of the infant can reveal many problems not solved in linguistics. It can especially help to specify the stated assumptions about the development of speech. Because the beginning of binarism lies in the speech of the baby. If an ancient person goes through the same language periods as a child, then the first words of an ancient person can be defined. And the meaning of words formed on the basis of common sound symbolism is revealed only through the symbol of a circle and a dot.

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