

8. Schützeichel R. Althochdeutsches Wörterbuch / Rudolf Schützeichel. – 5., überarb. u. erw. Aufl. – Tübingen : Max Niemeyer Verlag, 1995. – 342 S.
9. Wilmanns W. Deutsche Grammatik. Gotisch, Alt-, Mittel- und Neuhochdeutsch / Wilhelm Wilmanns. – Straßburg : Verlag von Karl J. Trübner, 1899. – S. 115–175.

УДК 811.111'271

I.M. Діяконович (Кам'янець-Подільський)

SPEECH AND AN INDIVIDUAL

Для дискусії винесено питання про мову, як предмет дослідження декількох царин: мовознавства, психології, соціології та фізіології. Походження мови ще й досі є дискусійним. Мова є явищем унікальним не через довід, що жодна інша істота не продукує її, що по суті є питанням заперечливим, а через дослідження у психології та соціології, які припускають її унікальність на підставі психічно-емоційної індивідуальності окремої людини.

Ключові слова: *емоція, соціум, просодія, рух тіла, пародист, музика мови індивідуума, спів, індивідуальність мовлення.*

В качестве темы дискуссии представляется вопрос о языке, как предмете исследования нескольких сфер: языкознания, психологии, социологии и физиологии. Происхождение языка до сих пор является дискуссионным. Язык есть уникальное явление не из-за того, что никакое другое существо не производит его (что, по сути, является вопросом отрицающим), а благодаря исследованиям в психологии и социологии, которые предполагают его уникальность на основании психически-эмоциональной индивидуальности отдельного человека.

Ключевые слова: *эмоция, социум, просодия, движение тела, пародист, музыка языка индивидуума, пение, индивидуальность речи.*

The research discusses speech as the study of such domains as linguistics, psychology, sociology and neuroscience. The origins of speech are unknown and subject to much debates and speculation. Speech is proved to be unique not from the point of view no other creature can do it which is rather controversial but from the point of view of psychology and sociology as it is made by an individual as unique 'singing'.

Key words: *emotion, social environment, prosody, gesture, impressionist, language musicality, singing, individual's speech.*

Speech has been much investigated in different domains. First of all it is the subject of study of linguistics as the latter focuses on the system of language that produces speech. Anthropology, biology, human anatomy, informatics, neuroscience, philosophy, psychology, sociology are other domains that study speech.

The origins of speech are unknown and subject to much debates and speculation. It is rather controversial how far human speech is unique in that other animals also communicate with vocalizations. While none in the wild have compatibly large vocabularies, research upon the nonverbal abilities of language some trained apes raises the possibility that they might have these capabilities.

The study of speech has significantly progressed during the last decades, due to the dramatic increase of interest fuelled by applications like virtual reality, video games, human-computer speech interaction, security and medical applications. Speech is a subtle and rich communication; it transfers not only the linguistic information, but also the information about the personality and the emotional state of the speaker. The emotion is a motivation-related answer adapted to the social environment. The prosody is a communication means which includes the attitude and the emotions. It also contains information about the speaker and about the environment.

There is no general agreement on the classification of emotions. Thus emotions are originally basic (happiness, anger, sadness, neutral tone) and non-basic [4].

Emotional prosody is the expression of feelings using prosodic elements of speech. It was considered by Charles Darwin in "The Descent of Man" to predate the evolution of human language: "Even monkeys express strong feelings in different tones – anger and impatience by low, – fear and pain by high notes" [3]. Native speakers listening to actors reading emotionally neutral text while projecting emotions correctly recognized happiness 62 % of the time, anger 95 %, surprise 91 %,

sadness 81 %, and neutral tone 76 %. When a database of this speech was processed by computer, segmental features allowed better than 90 % recognition of happiness and anger, while suprasegmental prosodic features allowed only 44 %–49 % recognition. The reverse was true for surprise, which was recognized only 69 % of the time by segmental features and 96% of the time by suprasegmental prosody. In typical conversation (no actor voice involved), the recognition of emotion may be quite low, of the order of 50 %, hampering the complex interrelationship function of speech advocated by some authors [5].

An aprosodia is an acquired or developmental impairment in comprehending or generating the emotion conveyed in spoken language. This is seen sometimes in persons with Asperger syndrome [5].

Producing these nonverbal elements requires intact motor areas of the face, mouth, tongue, and throat. This area is associated with Brodmann areas 44 and 45 (Broca's area) of the left frontal lobe. Damage to areas 44/45 produces motor aprosodia, with the nonverbal elements of speech being disturbed (facial expression, tone, rhythm of voice) [1].

Understanding these nonverbal elements requires an intact and properly functioning Brodmann area 22 (Wernicke's area) in the right hemisphere. Right-hemispheric area 22 aids in the interpretation of prosody, and damage causes sensory aprosodia, with the patient unable to comprehend changes in voice and body language [1].

Prosody is dealt with by a right-hemisphere network that is largely a mirror image of the left perisylvian zone. Damage to the right inferior frontal gyrus causes a diminished ability to convey emotion or emphasis by voice or gesture, and damage to right superior temporal gyrus causes problems comprehending emotion or emphasis in the voice or gestures of others [6].

Both lexical and prosodic information are encoded in rhythm, loudness, pitch, and vowel formants.

Anna Deavere Smith an American actress, playwright, and professor (now she is currently the artist in residence at the Center for American Progress) draws a very interesting link between speech and an individual. She states that speech is a phenomenon that rather refers to psychology than to any other domain. In her opinion to perform speech the first thing is the actual making of language. The 'actual' means 'at present' moment sound that the person is making and how that he is making that sound. That is where identity lives. Anna Smith considers language does not really live in what we are used to calling 'transcription', it is not like if one took what somebody else is saying at the moment and transcribed it. That would not be 'somebody'. But she thinks that a series of sounds and movements are that very 'somebody'. In other words, speech is the output product of that 'somebody'. Somebody's language is close to that person breathing, it is close to that very person's heart. And usually what she likes to listen to is the time when somebody says something in an unusual way. For that one should talk to people for about an hour. For example, if they're constantly using upward reflections, in other words, "you're always speaking up, you know, everything they say goes up which younger people tend to do. As I heard, a very accomplish judge say when asked what he could give to young women lawyers we are trying to make it is don't do that, because what is it say to the judge if you come forward and say "Your Honor, my client is not guilty?" it sounds like a question right?" (All these chunks of speech were pronounced with the rising intonation) [4]. So, when someone is talking all like that, what Anna Smith is doing she is just listening for the time that they do not do that and that what she would start to study as with characterizing them. Whereas we think the professional mimic or the impressionist, we pick the thing they do the most because that is what an audience could then identifies that person. So, an impressionist doing George Bush is going to try to find the gestures and the intimations that he keeps using over and over again. But if she (Anna Deavere) were to study George Bush (and she hasn't really done it) she would look for what he did something that was not what everybody has seen. Anna Smith went to Washington and I reviewed 520 people or more. And she was surprised that of those people the person, Clinton was probably among the five who had the most musicality in their language. In other words in Washington one begins to find less expression in speech of people than one finds in other places because people there are very careful about what they say. They are going to be judged for what they say. They could say the wrong thing or say it the wrong way and never leave it down. So, they have that peculiarity of their language which can be called in the way as someone who said very eloquently about Thomas Jefferson, who could never be found in verbal undress.

That kind of verbal dressing makes it harder to find music in the language. "I am trying to find the time the people start to sing, I call it singing, not actually, you know – la la la, but they are really started to open up rhythmically. More than again, what is the text? It is more about this singing as I

call it. And I was surprised to the extend to what Clinton sang. And the other thing about Clinton that I enjoyed was that he brought truth to something that a linguist that actually told me many years ago when I told her what I was trying to do, that is to say, a form of getting people to sing. He had said to me, “Well I’m going to give you three questions that can ensure that that will happen in a course of an hour if you only have hour.” I talk to people and the three questions were “Have you ever come close to death? Do you know the circumstances of your birth? And have you ever been accused of something that you did not do?” [4] Now when she first started her whole process which she called ‘On The Road To Search For American Character’, all of her plays were part of that series, she originally just sat with people who she met on the streets of New York and talk to them about whatever they know: if they sold milk... She could talk about selling milk or stick bond in the street in one case, or being a lifeguard, about what they did and then somewhere in the review, she would ask those three questions. And low in behold, every time she did it, people would start that singing. In Smith’s opinion that ‘singing’ is the language that identifies an individual’ speech.

Normal human speech is produced with pulmonary pressure provided by the lungs which creates phonation in the glottis in the larynx that is then modified by the vocal tract into different vowels and consonants. However humans can pronounce words without the use of the lungs and glottis in alaryngeal speech of which there are three types: esophageal speech, pharyngeal speech and buccal speech (better known as Donald Duck talk) [6].

Most of the speech sounds of the major languages of the world are formed during exhalation. Consequently, during speech the period of exhalation is generally much longer than that of inhalation. The aerodynamics of the breath stream influence the rate and mode of the vibration of the vocal folds. This involves interactions between the pressures initiated by thoracic movements and the position and tension of the vocal folds.

Physiology discovers that two areas of the cerebral cortex are necessary for speech production. Those areas are Broca's area, named after its discoverer, French neurologist Paul Broca (1824-1880). It is in the frontal lobe, usually on the left, near the motor cortex controlling muscles of the lips, jaws, soft palate and vocal cords. May be the very neighborhood of speech area and facial movements area determines speech to be rather physiological attribute than any other. Thus when damaged by a stroke or injury, comprehension is unaffected but speech is slow and labored and the sufferer will talk in “telegramsese”. Wernicke's area, discovered in 1874 by German neurologist Carl Wernicke (1848-1904), lies to the back of the temporal lobe, again, usually on the left, near the areas receiving auditory and visual information. Damage to it destroys comprehension - the sufferer speaks fluently but nonsensically [1].

So, what is speech then? Another very interesting assumption made an American psycholinguist Noam Chomsky. He has suggested that rules for meaning and grammar are inborn. This idea is supported by studies of children's speech. Their first negative statements consist of adding “no” or “not” to a positive statement: “no dog like it,” instead of “dogs don't like it”. Later they use the non-contracted form of “will”: “I will read you book,” though they hear adults say “I'll read you a book.” These habits are universal in young children, suggesting the idea of innate grammar.

The acoustic properties vary among different speakers producing the same sound and, more crucially, each utterance produced by an individual is unique. The mapping between the variable acoustic characteristics of speech production and the successful and stable identification of linguistically meaningful units in speech production is a major paradox. Recent research suggests that visual information is used to resolve acoustic difficulties in speech perception.

Список літератури

1. Caplan D. Neurolinguistics and linguistic aphasiology / D. Caplan. – Cambridge : Cambridge University Press, 1987. – P. 188–198.
2. Damasio A. Brain and language [Electronic Resource] / A. Damasio, H. Damasio. – Access mode : http://www.ccunix.ccu.edu.tw/~lngmyers/PL_Neuro.txt.
3. Darwin C. The Descent of Man [Electronic Resource] / Charles Darwin. – Access mode : http://www.infidels.org/library/historical/charles_darwin/descent_of_man/.
4. Deavere A. Talk to Me: Travels in Media and Politics / Anna Deavere. – New York : Random House, 2010. – P. 25–27.
5. Teodorescu H. A Study of Speech with Manifest Emotions / Horia-Nicolai Teodorescu, Silvia Feraru. – Berlin : Springer, 2007. – P. 8–12.
6. Wood C. C. Auditory and phonetic levels of processing in speech perception: Neurophysiological and information-processing analyses / C. C. Wood // Journal of Experimental Psychology. – 1975. – № 104. – P. 3–20.