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STAMMERING: LINGUISTIC, PHYSICAL AND SOCIAL ASPECTS

The article analyses the phenomenon of stammering from various perspectives: linguistic, physical and social. A lot of attention is paid to the reason why people stammer, classification of stammering as well as experimental research and approaches to treatment. David Crystal defines stammering as a speech production disability and includes neurological, psychological and anatomical steps required to encode a linguistic message and make it ready for transmission. Stammering usually occurs when people are not able to control rhythm and timing of their speech. This may happen due to physical as well as psychological reasons. Stammering usually starts at the age from one to three and can be overcome when treated consistently. There are at least seven types of stammering and they are usually accompanied by non-verbal behavior (grimacing, twitching etc.). Nearly 2% of adults stammer, while 10% of children do. Many famous people suffered from stammering, nevertheless very many others failed to be successful because of the psychological barrier caused by this symptom. The article reviews modern practices directed towards successful treatment of stammerers including very simple practices and more sophisticated ones.

Keywords: speech pathology, language disability, stammering (stuttering), symptoms, cerebral, hemispheres, experiment, treatment.

Formulation of a research problem and its significance. The field of speech pathology is experiencing rapid development: new theories emerge, various treatment methodologies are being devised. Nevertheless, the search for a unified approach that would combine all the knowledge, is going on. Furthermore, psycholinguistic research in the domain of speech language pathology is of great importance because of its practical use.

The research is targeted at the fundamental analysis of the existing theories that concern stammering.

Analysis of the research into this problem. David Crystal [3] defines language disability as “any systematic deficiency in the way people speak, listen, read, write” [3, 275]. Stammering (“stuttering” as it is more widely known in the US) “belongs to speech production disability and includes neurological, psychological and anatomical steps required to encode a linguistic message and make it ready for transmission”. Some scholars [3] claim that stammering may be thought as being a syndrome, not a disability. Others [14] argue that there may be no clear distinction between “clearly definable pathologies and obvious ineffectiveness at normal speech performances”.

In some cases the problems of both production and reception can be encountered as people who stammer and usually have problems of fluency control may experience deterioration of their ability to listen and comprehend.

Notwithstanding the fact that in 40 % cases [3, 274] language disability is caused by unsatisfying physical condition of an individual, the case with stammering cannot be explained using this only criterion. The functional causes in psychological, social and linguistic background should be taken into consideration. Elwood Murray [11] considers pathologies to be closely knit with the problems of personality. Furthermore, being a “human function” speech disorders are thought to reflect the problems of humanity [16, 11]. Berry and Eisenson suggest to classify speech as defective if the speaker is aware of their own deviations or if any “speech behavior interferes with a speaker’s social adjustment” [1, 1]. Research on stammering proves that there is the connection between the lack of adequacy of speech performance and emotional problems [6]. “Because of the relationship of stuttering symptoms to personality disturbance, therapy for the stutterer is often directed toward the social context of speech behavior. It begins with clinical treatment, after which the stutterer attempts to transfer his new skills and attitudes into relatively normal social situations” [14].

The goal and the specific tasks of the article. This article attempts to analyze the existing theories concerning one of the most widespread speech disorders – stammering.

Statement regarding the basic material of the research and the justification of the results obtained. Stuttering occurs when people experience problems with controlling "the rhythm and timing of their speech" [3, 288] and when there is "lack of disturbance of co-ordination of the muscle groups" [9, 42] responsible for speech production. It is thought to be a disorder of neural speech processing [13, 35]. That is why stammering is often accompanied by non-verbal behavior as grimacing, twitching, and other body movements; stammerers speak at three quarters of the rate of non-stammerers [13, 36].

Isaac W. Karlin defines stammering as "disturbance in the rhythm of speech characterized by intermittent or irregular, spasmodic blocking or repetition of sounds or words" [9, 42]. Also there are observable effects on the jaw and mouth, but also facial muscles and sometimes upper limbs. Stammering should not be confused with cluttering which is thought to combine both rapid and irregular speech. Moreover, patients who clutter are not usually aware of the problem [13, 35].

People usually start to stammer with the onset of speech or at the age of two or three; it affects "as many as 10% of children" and is more common for boys than girls. About two thirds of patients who stammer report a family history [13, 35]. It should be noted that there are about 720,000 adults and children in the UK who stammer [2].

Adults stammer because of various reasons – from hysterical to organic. This disfluency affects approximately 1 – 2 % of the world population.

Current theories approach stammering as: a) a habit; b) a behavior that is learned; c) functional disorder and is considered a psychoneurosis, a personality disorder ("the psychoanalytic school refers to stuttering as an oral neurosis in which the libido becomes fixed at the oral erotic stage of development"); d) an organic disorder of language function [9, 43].

If to approach the causes of stammering from the perspective of the cerebral dominance theory, it should be noted that stammering is seen to be as the result of the conflict between the two cerebral hemispheres. According to this theory stammering is related to left-handedness. It means that 'in normally left-handed children (which means an originally dominant right hemisphere) who are forced to use their right hand may acquire a stammer because of lack of development of the dominant hemisphere [9, 43].

Stammering involves several kinds of non-fluency that vary from speaker to speaker. The following are the types of stammering suggested by David Crystal [3, 288]:

1) the abnormal amount of repetition of sounds, syllables, words and phrases, e.g. *p-p-p-please, he's got a – got a – got a – car*;
2) abnormal lengthening of sounds, e.g. *sssee*;
3) when the speaker cannot release a sound, there is a "block";
4) extra words are inserted at points of difficulty, e.g. *oh, gosh*;
5) words are not stressed properly, abnormal intonation and speed of speech;
6) words and phrases may be left unfinished;
7) avoiding words and phrases that contain phrases that a speaker may find difficult, e.g. substituting *policeman* with 'officer of the law' when not being able to articulate [p] properly.

Respiratory anomalies are also seen as symptoms of stammering [9, 42].

It is interesting to know that among stammerers are (were) such famous people as Lewis Carroll (British author, *Alice in Wonderland*), Somerset Maugham (English playwright, novelist and short story writer), Marilyn Monroe, Canadian golfer Tiger Woods (one of the most successful golfers of all time), Shaquill O'Neal (famous former NBA player), award-winning actors Nicole Kidman and Bruce Willis, Scatman John (famous American jazz musician), B.B. King (American blues guitarist, singer, songwriter), Ed Sheeran (contemporary British musician), Andrew Lloyd Webber (a highly successful English composer), Charles Darwin (British naturalist), Vice President Joseph Biden (U.S.), Winston Churchill, Alan Turing (British mathematician). Some scholars even believe that Moses 'the leader and liberator of the Hebrews, stuttered and point to verses in Exodus' [5].

Among the famous stammerers was the Duke of York, who came to the Throne as King George VI. His story is shown in an award-winning *King's Speech*. The film is "a realistic depiction of frustration and fear of speaking faced by people who stammer on a daily basis" [2]. The film features Lionel Logue, the king's speech therapist. Since Mr.Logue hasn't left any records on how he worked, we can learn about his methods from some other patients he dealt with. In this respect we should mention Richard Oerton, who kindly shared his experience [12]. Back at the beginning of the XX century Lionel Logue didn't use psychological approaches and believed that stammering was often triggered by traumatic experience. "His main concern was to give me the experience of fluency", says Oerton. Mr. Logue liked giving editorials in Daily Express to read, he would ask to repeat different words like '*this, that, these, those*' or '*lip, lap, lop*' several times. Nevertheless, Logue treated his patients more through his personality than through his techniques.

What is interesting about Lionel Logue's approach is that his methods were quite moderate. Richard Oerton claims: "In my experience, it has not been entirely unknown for speech therapists to criticise their patients' efforts, almost as if they are trying to bully them into fluency. Logue wasn't like that. Quite a slight man, with white hair and rather delicate features, his voice was always slow, warm and friendly, still with a trace of an Australian accent, and he gave me nothing but encouragement" [12].

Logue had no specific training as a therapist, even so his approaches were innovative. We cannot blame him for mistakes if any, because he worked in the times before modern stammering therapy had not been developed.

Too often, stammering is treated as embarrassing and shameful [2]. This factor makes the lives or stammerers more difficult. They may fail to their educational and occupational potential. Surveys [13, 36] show that "of more than 200 adults who stammer about 70 % thought that their stammering had stood in the way of a promotion, whereas 20% has turned down a promotion because of it" [10]. People with chronic stammering have a 34-fold increased risk of having a formal diagnosis of social phobia [4].

In order to explain the reasons that cause stammering different approaches have been suggested. One that is worth mentioning was conducted by Kate Watkins, Jennifer Chesters, Emily Connaly and Riikka Mottonen, the Speech and Brain Research Group, Department of Experimental Psychology, Oxford University [15]. Their work is based on the hypothesis that there are differences in the brain work of people who stammer and who do not. The researchers recorded the brain's electrical activity by using electrodes on the scalp (electroencephalography) and also by measuring "tiny magnetic fields produced by the brain activity" (magnetocephalography). The experiments were also conducted to learn where exactly in the brain activities occur when people speak. To see that MRI scans were used. Also the researchers used an interference technique, transcranial electrical stimulation, which helped to check the connection between performance of a task and activity in a certain brain area.

The research subjects were asked to read texts aloud and simultaneously they had their brains scanned. They could hear themselves speaking and sometimes the researchers manipulated the feedback so that it was delayed or had a higher pitch. It was stated that the manipulations can help some stammerers to speak fluently. "Increases in brain activity are measured by increases in the amount of oxygenated blood supplied to a brain area during a task relative to another condition, such as resting" [15]. When listening and speaking the left part of the brain turned out to be more activated than the right. In case with the people who stammer there was less brain activity in brain areas involved in speech planning. This area is located in the lower part of the premotor cortex which is the part of Broca's area on the left side of the brain. There is a connection between different brain areas, responsible for monitoring speech production [15].

The outputs are sent to the areas that are involved in the execution of speech movements. These connections were examined with the help of diffusion-weighted imaging. This enabled the researchers to find the area which is functionally underactive during speech production in people who stammer.

The speech production and speech recognition areas synchronise their activity during speech production. In case with stammerers these areas synchronise more when a person is at rest (i. e. not reading). When the subjects experienced manipulations with feedback (higher pitch, delay) the brain areas synchronized their activity as it did in the case with subjects who didn't stammer [15].

The experiment shows that altered auditory feedback helps to enhance fluency by improving the coordination of activity between the brain areas. Thus we can see that stimulation can prolong the effects of successful fluency enhances such as altered feedback.

Research is being done, but still we cannot state that the humanity can easily deal with stammering. For instance, some children outgrow stammering, but in other cases early intervention as soon as possible after onset around the age of 3 years has been shown to be very effective in terms of complete recovery of fluent speech; intervention at school-age or even later offers the benefit of ameliorating the symptoms and the often severe psychological, social, educational and economic impact that stammering can have [2].

To ensure effective treatment at early age it should be noted that a child should be raised and cured in positive emotional environment, since many children experience bullying and negative attitude from peers because of the stammering and this influences their adult life. Stammerers may speak in different ways in different environments, i. e. talk better with some people than with others or talk even better when alone. They may not have any speech problems when whispering or singing [9, 42]. Behavioral treatment, devised in Australia (Lincombe Programme) can be applied to control children's stammering. It is usually performed by parents who teach children to self-correct a stammered utterance; is children do not stammer for some time, parents should praise them [13].

Adults are treated in different ways. For instance, chronic stammering can be dealt with using cognitive behavioral therapy and "speech restructuring". The latter is described as follows: "patients are trained to use a new speech pattern to reduce or eliminate stammering while sounding as natural as possible" [13].

Notwithstanding the age of a stammerer it should be noted that they should develop a sense of confidence in him / herself. Isaac Karlin [9, 44] suggests the following points in remedial speech work that are applicable to patients of any age:

1) the stammerer should learn to relax and overcome muscle tension when speaking (vowel prolongation is helpful);
2) co-ordinate breathing and talking;
3) learn to make appropriate pauses in speech and control phrasing.

The abovementioned seems to be rather simple, nevertheless, the advice is vital and fundamental in its nature and should be followed to ensure effective treatment.

Conclusions and prospects for further research. Stammering is a widespread speech condition that has become an object of research of speech pathologists. Many people suffer from stammering which causes not only psychical, but also psychological discomfort and frequently problems of social adjustment. New approaches suggest that causes of stammering vary from organic to hysterical and can be treated in different ways. Positive environment is one of the basic requirements. The stammerer should learn to relax and control breathing. Further research will be directed onto reviewing the existing simple and more efficient treatment practices of people of different age.

Bibliography

1. Berry M. Speech Disorders: Principles and Practices of Therapy / M. Berry, J. Eisenson. – N. Y. : Appleton–Century–Croftd, 1956. – P. 1.
2. British Stammering Association Comments on "The King's Speech" Film [Electronic resource]. – 2011. – Access mode : http://www.stammering.org/speaking-out/article/british-stammering-association-comments-kings-speech-film
3. Crystal D. The Cambridge Encyclopedia of the English Language / D. Crystal. – Third Edition. – Cambridge University Press, 2010. – 516 p.

4. Ezrati-Vinacour R. The Young Child's Awareness of Stuttering Like Disfluency / R. Ezrati-Vinacour, R. Platzky, E. Yairi // Speech Lang. Hear Res. – 2001. – P. 368–380.

5. Famous People Who Stutter. The Stuttering Foundation [Electronic resource]. – Access mode : http://www.stutteringhelp.org/famous-people-who-stutter

6. Goodstein L. Functional Speech Disorders and Personality: A Survey of the Research / L. Goldstein // Journal of Speech and Hearing Research. – 1958.

7. Hayhow R. Stammering and Therapy Views of People Who Stammer / R. Hayhow, A. M. Cray, P. Enderby // Journal of Fluency Disorders, 2002. – P. 1–17.

8. Hugh-Jones S. Self-reports of Short- and Long-term Effect of Bullying on Children Who Stammer / S. Hugh-Jones, P. K. Smith // British Journal of Educational Psychology. – 1999. – P. 141.

9. Karlin I. W. Stuttering / I. W. Karlin // The American Journal of Nursing. – 1948. – Vol. 48, No. 1. – P. 42–44.

10. Klein J. F. The Impact of Stuttering on Employment Opportunities and Job Performance / J. F. Keith, S. B. Hood // Journal of Fluency Disorders. – 2004. – P. 255–273.

11. Murray E. The Speech Personality / E. Murray. – Philadelphia, 1937.

12. Oerton R. Remembering Lionel Logue [Electronic resource]. – 2011. – Access mode : http://www.stammering.org/speaking-out/articles/remembering-lionel-logue

13. O'Brian S. Clinical Management of Stuttering in Children and Adults / S. O'Brian, M. Onslow // British Medical Journal. – 2011. – Vol. 343. – P. 35–38.

14. Philips G. M. Reticence: Pathology of the Normal Speaker / G. M. Philips // Speech Monographs. – N. Y. : Routlege, 1968. – Vol. 53, Issue 1. – P. 39–49.

15. Speech and Brain Research Group, Oxford University. Using the Brain to Understand Stammering [Electronic resource]. – 2012. – Access mode : http://www.stammering.org/speaking-out/articles/using-brain-understand-stammering

16. Van Rieper Ch. Speech Correction: Principles and Methods / Ch. Van Rieper. – Englewood Cliffs, 1963. – P. 11.

References

1. Berry, Mildred and Eisenson, Jon. 1956. *Speech Disorders: Principles and Practices of Therapy*. New York: Appleton–Century–Croftd.

2. British Stammering Association Comments on 'The King's Speech' Film, 2011. Accessed March 2015. http://www.stammering.org/speaking-out/article/british-stammering-association-comments-kings-speech-film

3. Crystal, David. 2010. *The Cambridge Encyclopedia of the English Language*. Third Edition. Cambridge University Press.

4. Ezrati-Vinacour R., and Platzky R., and Yairi E. 2001. "The Young Child's Awareness of Stuttering Like Disfluency". *Speech Lang. Hear Res.*

5. *Famous people who stutter. The Stuttering Foundation.* Accessed March 2015. http://www.stutteringhelp.org/famous-people-who-stutter.

6. Goodstein, Leonard. 1958. "Functional Speech Disorders and Personality: A Survey of the Research". *Journal of Speech and Hearing Research*.

7. Hayhow, R., and Cray, A. M, and Enderby, P. 2002. "Stammering and Therapy Views of People Who Stammer". *Journal of Fluency Disorders*.

8. Hugh-Jones, S., and Smith, P. K. 1999. "Self-Reports of Short- and Long-Term Effect of Bullying on Children Who Stammer". British Journal of Educational Psychology.

9. Karlin, Isaac. 1948. "Stuttering". *The American Journal of Nursing* 48 (1): 42–44.

10. Klein, J. F, and Hood, S. B. 2004. "The Impact of Stuttering on Employment Opportunities and Job Performance". Journal of Fluency Disorders.

11. Murray, Elwood. 1937. *The Speech Personality*. Philadelphia.

12. Oerton, Richard. 2011. Remembering Lionel Logue. Accessed on February 2015. http://www.stammering.org/speaking-out/articles/remembering-lionel-logue.

13. O'Brian, S., and Onslow, M. 2011. "Clinical Management of Stuttering in Children and Adults". *BMJ: British Medical Journal* 343 (7813).

14. Philips, Gerald. 1968. "Reticence: Pathology of the Normal Speaker". *Speech Monographs* 53 (1): 39–49. New York: Routlege.

15. Speech and Brain Research Group, Oxford University. 2012. Using the Brain to Understand Stammering. Accessed on February 2015. http://www.stammering.org/speaking-out/articles/using-brain-understand-stammering.

16. Van Rieper, Charles. 1963. *Speech Correction: Principles and Methods*. Englewood Cliffs.

Котис Олена. Затинання: лінгвістичні, фізіологічні та соціальні аспекти. Під різними кутами проаналізовано затинання. Багато уваги приділено причинам, класифікації затинань, експериментальним дослідженням та шляхам лікування цього синдрому. Девід Крістал визначає затинання як ваду мовлення, що

включає неврологічні, психологічні та анатомічні складники, необхідні для закодування лінгвістичного повідомлення і підготовки його до передачі. Затинання зазвичай з'являється, коли люди не в змозі контролювати ритм мовлення та його синхронізацію. Причини цього можуть бути як фізіологічні, так і психологічні. Затинання може виникати у віці 1–3 роки, при ретельному лікуванні його можна побороти. Виділяють щонайменше сім типів затинання; вони супроводжуються невербальною поведінкою (гримаси, сіпання тощо). Близько 2 % дорослих затинаються, у дитячому віці – близько 10 %. Велика кількість відомих людей страждали від затинання, проте дуже багато тих, котрі не стали успішними через психологічний бар'єр, спричинений цим симптомом. Пропонується огляд сучасних практик, скерованих на успішне лікування людей, що затинаються.

Ключові слова: мовленнєва патологія, вада мовлення, затинання, симптоми, церебральний, півкуля мозку, експеримент, лікування.

Котис Елена. Заикание: лингвистические, физиологические и социальные аспекты. Под разными углами зрения проанализировано заикания. Много внимания пределено причинам, классификации заиканий, экспериментальным исследованиям и путям лечения этого синдрома. Дэвид Кристал определяет заикание как речевой дефект, включающий неврологические, психологические и анатомические составляющие, необходимые для кодировки лингвистического сообщения и подготовки его к передачи. Заикание обычно появляется, когда люди не в состоянии контролировать ритм речи и ее синхронизацию. Причины этого могут быть как физиологические, так и психологические. Заикание может появляться в возрасте 1–3 года, при тщательном лечении от него можно избавиться. Выделяют по крайней мере семь типов заикания; они сопровождаются невербальным поведением (гримасы, дерганье и т. п.). Около 2 % взрослых заикаются, в детском возрасте – около 10 %. Много известных людей заикались, но есть множество других, которые не стали успешными из-за психологического барьера, появившегося в результате заикания. Предлагается обзор современных практик, направленных на успешное лечение заикающихся.

Ключевые слова: речевая патология, дефект речи, заикание, симптомы, церебральный, полушарие мозга, эксперимент, лечение.

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Тетяна Крисанова

КОГНІТИВНА МЕТАФОРА І КОГНІТИВНА МЕТОНІМІЯ ГНІВУ В АНГЛОМОВНОМУ КІНОДИСКУРСІ

Розглядаються когнітивна метафора і когнітивна метонімія гніву, характерні для англомовного кінодискурсу. Образний характер кінодискурсу полягає в його здатності оповідати, створюючи символи, які є метафоричними і метонімічними. Когнітивна метафора і метонімія відображають родові та видові ознаки передачі гніву. Серед когнітивних метафор можна відмітити універсальні конвенційні метафори, такі як ГНІВ Є КОНТЕЙНЕР ІЗ КИПЛЯЧОЮ РІДИНОЮ, ГНІВ Є ВОГОНЬ, ГНІВ Є СУПЕРНИК У БОРОТЬБІ, ГНІВ Є ДИКА ТВАРИНА, ГНІВ Є СТИХІЯ, ГНІВ Є СИЛА, ГНІВ Є БОЖЕВІЛЛЯ і специфічні, виділені в кінодискурсі, – ГНІВ Є ХОЛОД, ГНІВ Є КОМАХА, ГНІВ Є БІЛЬ, ГНІВ Є ПЕРЕПОНА, ГНІВ Є ПОТОЙБІЧНА СИЛА. До когнітивних метонімій відносимо метонімії, реалізовані вербально та кінематографічно або тільки кінематографічно, – ТЕМРЯВА, СТИХІЙНІ ЯВИЩА, ВИБУХ, ПОВЕДІНКА ЛЮДИНИ В ГНІВІ Є ПОВЕДІНКА БОЖЕВІЛЬНОЇ ЛЮДИНИ. Зазначені метафори і метонімії ґрунтуються на фізіологічних, психологічних і поведінкових особливостях людини, яка переживає гнів.

Ключові слова: гнів, емоція, кінодискурс, когнітивна метафора, когнітивна метонімія.

Постановка наукової проблеми та її значення. Емоції являють собою складний продукт духовної й пізнавальної діяльності людини і, як одна з форм відображення дійсності, складають невід'ємну частину людського існування. Властивість кінодискурсу передавати і викликати емоції демонструє його експресивний характер. Завданням кінофільму є не стільки передати інформацію, скільки викликати певний емоційний стан у глядача. Метафоричний характер кінодискурсу полягає в його здатності оповідати, створюючи символи, які є