

THE FARTHER REACHES OF STUDYING FOREIGN LANGUAGES AS A PSYCHOLINGUISTIC PHENOMENON

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Language, being a means of communication, and a tool of thinking, is also a fundamental mechanism of human development in onto- and phylogenesis. This relates not only to the native but also to foreign languages being studied. One of the most developed aspects of learning and teaching foreign languages is psychological/psycholinguistic, which reveals the amazing phenomena that practitioners of education should get acquainted with. Let us consider both some of these phenomena and their implications for the educational process.

As the latest research has shown, the educational process, including the process of languages learning/teaching, appears ***fundamentally resonant*** when its participants reveal resonate relationships with each other.

At the level of neuron organization of the human brain, the principle of resonance is realized in the phenomenon of "***mirror neurons***", discovered and investigated by Giacomo Rizzolatti with his colleagues [6]. This Italian scientist has revealed the mirror effect according to which the functioning schemes of neuron cells in human brain of a person are mirrored by the neuron cells of another person when these persons are in the process of communicative interaction. That is, the actions of a person, accompanied by the activation of the corresponding structure of the neurons of his/her brain, cause the activation of the same structure of the neurons in the brain of another person, who observes these actions and participate in these actions.

This mirror effect is also manifested at the level of *ideomotor reactions*, when a thought or mental image brings about a certain muscular reaction being beyond the awareness of the subject, *when the movement being imagined by a person is realized reflexively*. So, under the influence of some mental processes within human nervous system the nerve impulses providing real physical movement in the body spring up,

which activates minimal in intensity (and not realized in actual movements of human body) motor impulses arising in connection with person's thoughts about physical movements.

So, we can talk about the "*ideo-dynamic response*" (or "reflex") which relates to a wider domain, and is applied in the description of all bodily reactions (including *ideo-motor* and *ideo-sensory* responses) caused in a similar way by certain thoughts/mental images, when, for example, the salivation being a secretory response is often caused by mere imagining by a person of the process of tasting a lemon.

The mentioned phenomenon is embodied both in the context of *evoked potentials of the brain* (when the frequency characteristics of sounds perceived by human beings generate brain processes characterized by the same frequency characteristics), and in the form of *ideomotor reactions*, when in the brain of a person who imagines certain physical movements, the nerve impulses are detected, which occur during real physical movements.

Not only thoughts about own physical movements but the person's observation of physical movements of other people can cause the ideomotor reactions in this person. From this stems the colossal civilization phenomenon – "***spectacles and bread***" ("bread and circuses" or "bread and games").

The phenomena we have mentioned are used in educational processes in the form of ***educational resonance*** which presupposes the *resonant organization* of the educational process and which should be widely applied in teaching foreign languages.

The principles of educational resonance are used in the educational method/technology of "***resonant learning/teaching***" [5], which can be illustrated by the following example: the class of students is divided into two groups: group A – those who are able to learn quickly, and group B – those who learn slowly. The teacher organises a lesson on a specific theme with group A only when the studying material is explained by the teacher to several smart students. Then the teacher waits for 1-2 weeks until this material is "filtered" through the class at the level of "ideas

that are in the air" (when the circulation of ideas/information takes place at a non-verbal, resonant level).

Then groups A and B are united and the lesson is conducted on the same theme, when the studying material is explained to the whole class. Under these conditions, group B acquires knowledge somewhat better than when the lesson on the theme is organized for the students of group B only. Therefore, due to resonant effect the knowledge that group A has already acquired can somehow be transmitted to the students of group B who in this case can acquire studying information quickly and efficiently

Thus, resonant learning/teaching realizes the process of transferring information through information resonance within the educational process. Objections to resonant learning/teaching are based on the opinion that it is impossible to broadcast in a resonant way, for example, the multiplication table. But resonant learning/teaching does not presuppose the transmission of sign-verbal information (the problem of this type of resonant transmission is still under consideration in the scientific world), but the transmission of emotional-extraverbal information, which is very important not only in the process of communication, but also in the actualization of life experience in solving the problems, when person's emotional activation is an decisive stage (and mechanism) of this process.

Another important fact of psychological/psycholinguistic aspect of educational process is connected with that that ***a person's use of a foreign language can increase his/her level of aggression.*** Cognitive scientist Julia Sedivey, the author of the book "*Language in Mind: An Introduction to Psycholinguistics*", analyses scientific data on the ethical shifts that occur when we think and communicate in another (foreign) language [4]. In this regard, the researchers have found that the use of a foreign language in some way changes the moral judgments of the participants, increasing their level of aggression.

One of the explanations of this phenomenon has it that the differences in the perception of the world by a person who uses native and foreign languages are due to the fact that the native language of our childhood is realized with greater emotional

intensity than the foreign language which we learn in a more academic environment. Thus, moral judgments made in a foreign language are less charged with emotional reactions comparing with the case when we use the mother tongue being mastered in childhood. So, the native language of our childhood, being learned along with vivid life experiences, is full of deep emotions (such as empathy, compassion, love, etc.), while the foreign languages, especially if they were studied in academia through technical devices, are realized with less emotional colouring.

From the point of view of *the concept of the asymmetry of the hemispheres of human brain*, this phenomenon finds a simple explanation: a person learns the native language in childhood at the level of the right hemispheric irrational emotional-image mechanism that allows the child to perceive the world openly, sincerely, emotionally. When a person learns a foreign language in the educational environment of educational institutions, this process (especially when its aims are achieved within the so call grammar-translating method) is realized mainly at the level of the left hemispheric abstract-logical rational mechanism, the functioning of which makes a person a cold-emotional human being that tends to express a certain aggressive/alienating attitude toward the world.

Another important fact concerns the process of mastering the native language. This process is realized on two interdependent levels – abstract-logical and emotional-practical. The *first level* is related to language knowledge and skills, the *second one* – to the basic communicative (*conceptual and sensual*) experience of the implementation of these knowledge and skills in real life in the process of communication. There are experimental data showing that during person's acquisition of a foreign language *outside* the communicative environment of its speakers, new language knowledge and skills are formed, and the basic communicative experience remains unformed. Under these conditions, *new knowledge and language skills are associated with the old communicative experience of mastering the native language*, which creates a neuropsychological conflict; and this conflict is greater the more etymologically distant is the foreign language from the native one.

At the same time, the separation of the two communicative experiences does not give a chance to learn a foreign language perfectly: for a person who has already passed the first 2-6 years of his/her life, when the foundations of language sense/spirit and basic set of communicative experience of native language are formed, it is impossible to develop a new – "true" – communicative experience of foreign language usage, likewise it is impossible to return to childhood.

All the mentioned problems are solved in two ways.

First, our *approximate-analytical method of teaching/learning foreign languages* [1; 2; 7] in some way solves both 1) the problem of increasing the aggression of a person who uses a foreign language and 2) the problem of contradictions between communicative codes, that is, between communicative experience of foreign and native languages, because our method enables to learn a foreign language on the basis of old communicative experience created on the bases of mastering the native language. Due to this a learner gets rid of the mentioned psychological conflict. The essence of the method lies in bringing verbal nets of foreign and native languages close to each other to the degree of their mutual penetration, when English word stock is not perceived by the learner as foreign language words, but, on the contrary, some familiar features are seen in them. Due to this the process of acquisition of the words of a foreign language does not presuppose the creating an utterly new communicative experience. In fact, the old – native – communicative experience is used in this process. All this allows the students to master a plenty of lexical units of a foreign language during relatively short period of time, that is, to achieve training efficiency comparable to that in the environment of native speakers.

The motivation of the words of a foreign language with the help of verbal system of the mother tongue and communicative experience of its mastering presupposes an application of children's naive word-building, which, on the one hand, switches on the mechanisms of concrete and emotional right hemispheric mentality (on its basis the motivation of words is reached, since the right hemisphere of human brain "does not understand" the relativity of the ties between the thing and

its designator), and on the other hand – such motivation provides the use of resources of the left verbal and sign hemisphere of human brain, that "understands" the relativity of the connection "thing – word", which enables to carry out the process of total analytism, characteristic of children's word-building. On the basis of this process it becomes possible to achieve the state of motivation of the words of foreign language with the help of their morphological differentiation and conceptual re-evaluation.

Herewith the resources of right and left hemisphere of human brain are used simultaneously which is the main principle of a new paradigm of education we put forward in some of our papers.

The morphological differentiation as one of the ways of achieving the state of word motivation takes place not only in children's word-building, being wholly natural stage of mastering the native language. It takes place in people's etymology expressing the tendency to achieving the state of motivation of each word, observed at a level of all languages. That is why we meet with the fact of coincidence of sound shells of the words and their meanings in genetically very far languages, which was repeatedly marked by the researchers [1; 2; 7].

Let us consider some basic channels/ways of bringing together the verbal nets of native and foreign (English) languages. Here we should like to show the basic ways of motivation of the lexics, which enables rather easily to achieve the state of motivation of practical all lexical treasure of a foreign language:

1) Direct phonetic conformity of international words (Ukrainian/Russian word 'klas' – class), and also indirect phonetic conformity, which have various spelling or morphological forms of equivalent words in native and foreign languages: Ukrainian/Russian word 'gigant' – giant.

2) Direct phonetic associations: brave – Ukrainian/Russian word 'bravy' (meaning courageous).

3) Indirect phonetic associations: to listen – Ukrainian/Russian word 'listia' (meaning leaves): 'To listen to falling 'listia'.

4) The word changing transformation on the basis of reconstructing the meaning: budget – Ukrainian/Russian word ‘byudzhet’ (in the meaning of growth) → bud (in the same meaning); sweater – Ukrainian/Russian word ‘sveter’ (in which one ‘gets sweat’) → sweat → wet (‘damp from sweat’): ‘A man in a sweater sooner or later begins to sweat which makes him wet’.

5) Word-building analysis of international words: basketball = basket + ball; fireworks = fire + works; cock-tail = cock + tail; empire → imperialism → peril.

6) Re-evaluation and reconstruction of proper names and geographical names, advertising, etc. Broadway = broad + way; Richard = rich. Wordsworth = word + worth. Shakespeare = shake + spear: ‘It's not enough to shake your spear in order to be named Shakespeare’.

7) Associative word-building transformation of international words: corridor = core + door. Commune → common → competition = ‘common petition’. Admiral can be understood as ‘the man in wonderful mirror, dazzling sea uniform, worthy to be admired’ → admire, miracle, miraculous, mirror, mirage. Artillery – (art + till) = ‘the art to till land with bombs and shells’. Magnet – ‘magic net’ → magician, magnificent: ‘She is in a magic net because she smokes a cigarette’. Fieldmarshal – ‘marshal of the field’ → marshal → martial → (folklore = folk + lore → law) → martial law.

8) Re-evaluation of semantic motivation. For example, the semantic motivation of the word ‘compulsory’ is realized through its splitting into motivated parts: ‘common pulse’ → compulsory, that is, common, obligatory for all.

9) Re-evaluation of homonyms: horde (Ukrainian/Russian word ‘orda’) → to hoard.

10) Distribution of semantic motivation and its enrichment. The word ‘qualification’ is translated as ‘kvalifikatsia’, however the word ‘quality’, being etymologically connected to the word ‘qualification’, in this case is translated as ‘katchestvo’ (Russian), ‘yakist’ (Ukrainian) the sounding and spelling of which have nothing in common with those of the word ‘quality’. But ‘qualification’ should be understood as ‘qualititiveness’ – as level of knowledge, skills of a man/woman

engaged in certain sphere of activity. Such understanding gives the right idea about “nucleus” of the concept ‘qualification’. At the same time the traditional direct translation of the word ‘qualification’ is an empty shell, deprived of deep semantic core. The Ukrainian/Russian word ‘kvalificatsia’ has no direct semantic relation with the word ‘quality’, which complicates the mastering and even the understanding of the words ‘quality’, ‘equality’ (‘equal quality’), ‘to qualify’, etc. It is necessary to note, that in this case the bringing together of the verbal nets of native and foreign languages is carried out due to widening the volume of the concept ‘qualification’, when we, as a matter of fact, enrich the set of experience of mastering the mother tongue. In the framework of this channel of distribution and enrichment of semantic motivation it is possible to give the following conformity: expert (Ukrainian/Russian word ‘ekspert’) – experience (Ukrainian/Russian words ‘dosvid’, ‘opyt’).

11) The usage of rhyme, which can play a role of the associative bridge between conceptually far words (‘Alice – malice’), due to the fact that the leading factor helping the actualisation of temporal ties in second signalling system is the similarity of phonetic shells of the words and their rhythmic structure. In this respect it is possible to offer the use of a bilingual rhyme: prompt – Ukrainian/Russian word ‘eksprompt’ (meaning a result of impromptu action).

12) If we take into account, that the similarity of phonetic shells of the words is a very important factor taking part in the process of formation of temporal ties in second signalling system, then the application of this way of learning the words can be considered a very important. For example: ‘Florida is rich in flora. There they have flowers everywhere, even on the fiftieth floor (Florida, flora, fiftieth, flower, floor)’. Apparently, the laws of formation of temporal ties determine the processes of motivation of separate sounds of a language, which is fixed in *sound symbolism* – the branch of general linguistics. To prove this statement we would like to present an example. The sound ‘fl’ is used to express moving or flowing through the air, water or to express the intuitively understood cause of such a motion which is hidden in such characteristics of the things as ‘soft’, ‘airy’, ‘light’, ‘fiary’, ‘swelling’, ‘dynamic’, ‘penetrating’ etc. Here is the row of words with sound ‘fl’ [3]: *flabby*

(soft, not firm), flag (a piece of cloth waving in the wind), flair (natural or instinctive ability to recognize what is best), flake (small, light, leaf-like piece), flame (a portion of burning gas), flank (fleshy part of the side of a human being or animal), flannel (loosely woven woolen cloth), flap (cause to move up and down or from side to side), flapper (something broad and flat), flare (burn with a bright, unstable flame), flash (sudden burst of flame or light), flea (small wingless jumping insect), fledged (with fully-grown wing feather), flee (run or hurry away), fleece (woolly covering of a sheep), fleet (quick-moving), flexible (easily bent without breaking), flick (quick light blow), flicker (of light – to burn or shine unsteadily), flight (flying through the air), flinch (draw or move back), flimsy (of material – light and thin), fling (throw, move quickly and with force), flip (put smth into motion by a snap of the finger and thumb), flirt (try to attract a person), flit (fly or move lightly and quickly), float (be held on the surface of a liquid, or up in air, gas), floe (sheet of floating ice), flock (tuft of wool or hair), flog (beat severely with a rod or whip), flood (coming of a great quantity of water in a place that is usually dry), flop (move, fall, clumsily or helplessly), flora (all the plants), flounce (move or go, with quick, troubled or impatient movements), flounder (make wild and usually useless efforts), flour (fine powder), flourish (grow in a healthy manner), flow (move along or over as a river does, move smoothly), flower, flu (influenza), fluctuate (move up and down), flue (pipe or tube for carrying heat), fluency (the quality of being fluent), fluent (able to speak smoothly and easily), fluff (soft, feathery stuff), fluid (able to flow), fluorescence (emission of radiation), flurry (short and sudden rush of wind or fall of rain or snow), flush (rush of water, blood to the face, rush of emotion, excitement), fluster (make nervous or confused), flute (musical wind-instrument), flutter (move the wings hurriedly or irregularly without flying), flux (continuous succession of changes), fly (move through the air)...

The factor of similarity of phonetic shells of words as an important moment of their mastering can be used at learning such real and potential words (occasionalisms) and their derivatives as, for example, *to propose – proposition – proposal – proposer – to dispose of – disposer – disposition – to predispose – predisposition – indisposed – indisposition – to interpose – to juxtapose – juxtaposition – to oppose – opposition*

– *repose* – *to repose* – *repository* – *to compose* – *composer* – *composition* – *composed* – *composure* – *to decompose* – *decomposition* – *to sympose* – *symposia* – *symposium* – *to depose* – *to superpose* – *to postpose* – *to interpose* – *to contrapose* – *to depose* – *to discompose* – *deposit* – *to expose* – *exposition* – *exposure* – *to impose* – *imposing* – *adipose* – *to suppose* – *supposed* – *supposition* – *to presuppose* – *presupposition* – *purpose* – *to transpose* – *position* – *to position* – *poise* – *to poise* – *poison* – *positive* – *to possess* – *preposition* – *prepositional* – *to preposses* – *prepossesing...* Here meaningful nucleus/stem ‘pose’ comprises in a potential, latent state a lot of words, which, as we believe, should be learnt together in common contest.

Second, the process of learning a foreign language should be deeply emotional, immersed in childhood. Let us consider one of the discovered by us psycholinguistic phenomena in connection with the study of English by the students of Zhytomyr Ivan Franko State University (the specialty "performing arts"). Each of the first-year students was asked to read aloud the text "*About myself, my family.*" Mistakes in the pronunciation of separate words were not corrected by the teacher. For the first time the text was read by the students on behalf of university students being their usual social role. The second time the text was read on behalf of the children aged 5-6 years, which presupposed a certain "reincarnation" of the students being the prospective actors. It turned out that in the process of reading the text in the role of children, the students made fewer mistakes in pronunciation of the words; even more, the pronunciation of foreign words by the students improved slightly. Further study of this phenomenon confirmed the influence of regressive states on the quality of English language proficiency.

This phenomenon (than can be applied within such teaching methods as theatrical dramatization, social role games/trainings, etc.) has several explanations. One explanation is that the psycho-emotional state of childhood could liberate the students from the fear of making mistakes, and also allows activating the experience of the native language usage characterized by spontaneous/intuitive acts of communication. And this has a rather positive effect on the process of mastering a foreign language.

Conclusions and recommendations

Taking into consideration the above mentioned psychological/psycholinguistic phenomena we can conclude that the process of language teaching/studying must be an emotionally deep multifarious communicative interaction of all the participants in educational process.

A foreign language must be mastered in the way we master our mother tongue, and must be mastered on the verbal basis of the latter. For this purpose we can apply the approximate and analytical method stemming from a fundamental problem concerning the studying of foreign languages: how can a person master a foreign language to perfection outside the communicative environment of its native speakers. The method has been developed to overcome this problem (as well as the problem concerning increasing person's aggression by using a foreign languages) since it teaches English outside the communicative environment of its native speakers and gains the efficiency comparable with that of the methods using the altered states of consciousness – such as hypnotic trance and others (the method of the 25-th film for example). The approximate and analytical method is based on several scientific regularities and laws. The first regularity concerns the peculiarities of human brain perception of the verbal information. The neurons of man's cortex function according to the integral mechanism, that is, they organize the neuron nets and constellations. Due to this person's brain tends to perceive generalized and associative verbal information compiling integral verbal nets. That is why similar meaningful and morphological, graphic and phonetic verbal elements are perceived by our brain as integral entities. So, etymologically and associative cognate words create integral verbal nets that are to be used in the process of foreign languages teaching/learning.

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