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RESONANCE TECHNIQUE OF ACQUISITION OF ENGLISH: A TURNING POINT IN TEACHING TECHNIQUES

Introduction

Resonance Technique (RT) of Acquisition of English is a new technique of teaching English (= foreign language) by which the student quickly improves his hearing and understanding of English (The name of the technique comes from the assumption that people use language on the principle of resonance).

Hearing means here skill of segmentation, i. e. separating words when listening to a recorded English text; understanding means ability to know or recognise the meaning of a given word.

RT student makes progress after reacting for a few minutes to a recorded English text. This reacting, called 'language stimulation', is a kind of resonating to the words the students hears and is described later in this paper. The progress achieved by RT was observed to be permanent.

It should be also stressed that RT is a technique of acquisition of English, as progress here is achieved subconsciously and only through language stimulation, without any earlier preparation or learning on the part of the student. Moreover, it was observed that subsequent students with the technique achieve better results under the same teaching conditions (the same tape-recorded material and student's behaviour), which is explicable in terms of Sheldrake's Theory of Morphic Resonance (1989) and is discussed later in this paper.

RT resulted from a language teaching experiment carried out by the author in 1990–1991. In 1992 the technique was verified on over 1000 students. Up to the present (February 2000), over 2500 persons have had contact with RT.

Presentation of RT

Before describing RT let us first get acquainted with its basic concepts. As it was mentioned in Introduction, hearing means here the skill of segmentation, i. e. separating words when listening to a recorded English text, understanding means ability to recognise the meaning of the word.

Understanding is expressed in percentage of words understood from a recorded 50 word task (= test). During the test every time the student understands a word he marks it with a bar (or dot) on a blank sheet of paper. To get the percentage of understanding one must multiply the amount of bars by 2, e. g. 30 bars times 2 make 60%(=60% understanding level),

Hearing of English words (= segmentation) is tested on the same tasks and its percentage is calculated in the same way as percentage of understanding. However, it is not necessary to check hearing since it automatically improves with better understanding.

RT session : a teaching unit, usually 15–20 minutes long.

Language stimulation: 6 – 7 minute stimulating the student with recorded portions of English (a combination of different fragments of text – sung and/or spoken) during which the student must react to every word he hears by putting down a bar or dot on a blank sheet paper (the bars or dots are not counted). Also, the student's attention should be focused on his organs of speech and he should repeat all words he hears in his inner speech.

Pre-test: the first test on understanding.

Post-test: the final test on understanding which shows the achieved progress.

An RT session consists of:

1/ understanding test (Pre-test) – 30 seconds (+ segmentation test – 30 seconds);

2/ language stimulation (1 or 2, depending on the session number) – about 7 minutes;

3/ control tests on understanding (e. g. tests number 2, 3, or 4, 5 and test number 1 as Post-test) – about 30 seconds each.

During RT session the students first take a test on understanding (Pre-test), then a hearing test, after which language stimulation starts. After the stimulation there come control understanding tests and Post-test.

The aim of RT is to achieve over 80%understanding level of recorded tasks (=tests).

80% understanding is very often achieved after one or two sessions with students learning English. Students who do not learn English (non-English group category) need 2 – 4 RT sessions. If the aim is not achieved after 4 sessions, the RT teaching cycle should be repeated a few weeks later. The most recommended break between sessions is two weeks.

The Experiment and RT verification

In the academic year of 1990/91 a language teaching experiment was carried out by the author with three groups of students at Rzeszów Department of Warsaw School of Economics. Two groups were intermediate and one was a group of beginners. There were about 50 students altogether: the classes were held in a language laboratory twice a week (90 minutes each class). The aim of that experiment was to see if the students' understanding of recorded tasks would improve only through language stimulation.

Tape-recorded material was prepared by the author out of fragments of recorded English pop-songs, radio materials and English teaching tapes. The same tapes were used many times and understanding was tested every week.

The first months of the experiment did not bring any significant change in the students' understanding so in March 1991 a brain stimulating Hemi-Sync (H/S) tape was introduced into the experiment. The purpose of the tape was to enable the students to use more of their brain potential in learning since H/S tapes cause the brain of the listener to work in synchrony, i.e.the left and right hemispheres synchronized. (Hemi-Sync, short for: Hemispheric Synchronization, The Monroe Institute, Faber, Virginia, USA). H/S tapes were experimentally used as teaching enhancement in the 1980s in the USA with good results (see: Edrington 1984, Waldkoetter 1991), H/S Concentration tape was used, which was suggested by The Monroe Institute, USA.

At the beginning of each class the students listened to H/S tape for 30 minutes through stereo speakers and at the same time they read (silent reading) long lists of English words with Polish equivalents. Next, after a short break language stimulation started,

H/S tape was creating a very pleasant atmosphere and the students could concentrate better with less tension. They were very cooperative and showed a lot of enthusiasm. This observation is compatible with Edrington (1989) and Waldkoetter (1991).

After a few classes conducted in this way the first leap in understanding was observed with all the students. The results were 50 % better on average. Another leap appeared a week or two later. It was obvious that the aim, i. e. improvement in understanding was achieved.

At that time a leap in understanding occurred with the author's private students , which was interesting since the students were not stimulated by H/S tape and their language stimulation was much shorter (5–10 minutes).

It was surprising that results of those 'non H/S students' were similar and sometimes even better than the results of H/S students. This made the author think that H/S brain stimulation was not necessary for RT, and therefore the use of H/S tape was abandoned after the vacation break.

In October 1991 RT was tested on two new groups, i.e. Experimental groups #4 and #5. Their understanding improved after 2 – 3 RT classes and their results were higher than those of Experimental groups #1, #2, #3. It is worth mentioning that the old groups sustained their understanding level of May 1991, however they were unable to make any further progress by RT. The tables below show mean understanding levels for experimental groups expressed in percentages.

group	'0'data	first	second	Remarks
March – April 1991	%	leap	leap	
E-1	27	41	56	Hemi-Sync
E-2	16	35	45	Hemi-Sync
E-3	31	51	71	Hemi-Sync
mean:	25	42	57	
Oct-Nov. 1991				
E-4	44	53	74	
E-5	33	51	56	
mean:	39	52	65	

In 1992 March through June RT was verified in Rzeszów on random selection groups of students at 4 different secondary schools and on groups of university students The groups were divided into two categories:

1/ English groups, i. e. students learning English, regardless of their level, 26 groups, 560 students.

2/ Non-English groups, i. e. students who did not learn English at all, 25 groups, 503 students.

The verification was chiefly focused on improvement of understanding in one RT session (but RT was also verified for progress achieved in 2 sessions, on over 100 students).

The teaching procedure was identical for all groups (the same tape-recorded material, the same tests, instructions and students' behaviour) and the groups were similar to one another in age, background, intelligence etc. In every RT session students first took a test on understanding (Pre-test), after which followed a test on hearing, language stimulation, control tests on understanding and a Post-test.

The verification results showed that in one session understanding improved in more than 80% of students in both group categories. Moreover, it was observed that students in subsequent groups showed a tendency to achieve better results.

The data for consecutive groups analysed by linear regression statistics is statistically significant. The data was processed by Statgraphics Program V. 4,2 in the Statistics Division at Rzeszów Department of Cracow Agricultural University and the graphs showed the rising tendency for subsequent students to do better in both group categories.

After the verification RT was further tested on new groups of students. In 1993/94 the data showed that RT was becoming more and more effective. At that time 80% level of understanding was already achieved at the very first test (Pre-test) with some students of English group category, which never occurred before. Sample data for that period analysed by linear regression statistics support the rising tendency for subsequent students to do better.

Discussion

1. RT is a technique of acquisition of hearing and understanding of English. The acquisition is self-triggering, saltatory and subconscious. It has been observed that the progress is achieved quickly, at all levels of advancement and is permanent, i.e. sustained after several months (even 2 years) of break in learning. It should be added here that RT students do not acquire understanding of all English utterances. They acquire understanding of recorded tasks and of utterances similar to the tasks. It is assumed, however, that by the transfer mechanism the students will be able to understand many new English sentences, too.

2. Subsequent RT students tend to achieve better results under the same teaching conditions, i.e. the same tape-recorded material, the same tests and students' behaviour. In other words, RT is becoming more effective as number of its students increases.

This phenomenon may be explicable in terms of Sheldrake's Theory of Morphic Resonance (1989).

By and large, the theory postulates that nature of things depends on fields, called morphic fields. The fields are non-material regions of influence and like the known fields of physics (electromagnetic, gravitational etc.) they are detectable through their physical effects (see: Sheldrake 1989). It is assumed that morphic fields extend in space and continue in time and that they are localized within and around morphic units whose structures and patterns of activity they organize. (A morphic unit is a unit of form or organisation, e. g. an atom, molecule, cell, plant, animal, pattern of behaviour, social group etc.) The fields are shaped, stabilized and inherited by morphic resonance, i. e. the process by which morphic units influence subsequent similar morphic units organised by the morphic fields. The resonance takes place on the basis of similarity, (i. e. the more similar the unit is to the previous morphic units the greater is their

influence on it) and the effect of the resonance is cumulative. As Sheldrake (1989:109) puts it: *Morphic resonance involves a kind of action at a distance in both space and time. The influence does not decline with distance in space and time.*

According to Sheldrake there are different kinds of morphic fields, depending on what they organise, e. g. morphogenetic fields organising morphogenesis, behavioural fields which organise different patterns of behaviour and so on. Under this theory, skills (physical skills and skills such as speaking and understanding of languages, reading, writing etc.) depend on morphic fields (see: Sheldrake 1989:186) It is assumed that in learning of a skill people tune in to the morphic field of the skill and their learning is facilitated by morphic resonance from those who have practised the skill before them. As more and more people acquire the skill it should become easier for subsequent people to learn it.

With RT, subsequent students were observed to achieve better results. In 1990/1991 the students in the experimental groups needed many hours of language stimulation to be able to make progress by RT for the first time. Subsequent students did not need so much time to achieve that progress. Moreover, the progress of the subsequent students was higher.

It may be said that the students in the experimental groups developed a new skill, the skill of 'extracting' meaning from recorded tasks by RT. They did that after many thousands of repetitions of the same reactions during language stimulation.

It is assumed that at the moment they made their first progress (March 1991) a new morphic field was created. This field, called RT field is a field of this new skill, and it organises students' acquisition of hearing and understanding of English by RT. By repeating the same pattern of behaviour, subsequent RT students tune in, on the basis similarity, to this field and their learning is facilitated by morphic resonance from previous RT students. In addition, the later RT students achieve better results due to the cumulative effect of morphic resonance. At the same time the students also influence RT field. They reinforce it and thus further create the technique.

From the observed facts it may be concluded that morphic resonance underlies and facilitates language acquisition. This conclusion is compatible with Sheldrake's view (1989:183) that *the* [morphic] *resonance underlies the general tendency to acquire language and also facilitates the acquisition of particular languages (...) by resonance from previous speakers of these languages.*

3. With RT the language signal (= recorded English words) is processed simultaneously by senses of hearing and touch. The movement of the student's hand (repetitions, rhythm) engages all of the senses. As language stimulation is based on fragments of songs, music in the background provides many

advantages, too. Music relaxes, which creates the student's openness to new information. Music engages the student's emotional system as well as his right hemisphere of the brain where it is primarily processed. The engagement of the right hemisphere results in by-passing of critical filters in the left hemisphere (see: Morris 1989). Furthermore, the student is repeating the words he hears in his inner speech, which means that the language signal is also processed mentally by the student. In short, RT student actively participates in the learning process, and, as Morris (1989:4) puts it: *Participatory learning activates all of the senses and provides immediate feedback. (...) More sensory and motor neurons are activated when we become an active participant*

Neuroscientists have found that even a very short (a few seconds) intense brain stimulation can increase brain complexity and capacity (see: Hutchison 1989, passim). In fact, RT is a kind of such intense brain stimulation, therefore it may be assumed that by RT there are formed new neural connections or networks responsible for 'transforming' the English language signal.

Conclusions

RT is a technique of acquisition of English, at the present stage of hearing and understanding of English. The technique quickly improves the skill of listening.

RT complements and enhances the existing methods of teaching English and it may be used before one starts to learn English (= pre-learning), or during learning English by other methods as teaching enhancement

(=in-learning) or as a 'brushing up' technique (= post-learning).

RT creates new and yet unknown possibilities in teaching languages. The technique is being created by its students and now no-one can tell where this new road leads.

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