

# **SUGGESTOPEDIA AND LANGUAGE ACQUISITION**

## **VARIATIONS ON A THEME**



**W. Jane Bancroft**

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# **Suggestopedia and Language Acquisition**

## **Variations on a Theme**

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**Gordon and Breach Publishers**

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## INTRODUCTION

# Methods for Language Acquisition

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In the 1990s, in contrast to earlier decades, it is not considered fashionable in some circles to talk about language methods. Nonetheless, if one has occasion to peruse currently used anthologies of “successful” language methods, one will notice that many of these are largely based on what is termed implicit learning, i.e., the student learns a second or foreign language by engaging in physical or creative activity, through indirect attention or unconscious assimilation. In many current communicative-approach methods, language is not learned (or learned exclusively) in an explicit manner through the presentation of drills and rules; it is acquired implicitly in a manner similar to the way in which one absorbs information by watching television. According to Stephen Krashen language fluency comes from acquisition and this acquisition process is largely unconscious (Krashen and Terrell, 1983, pp. 26–27). While there is, unfortunately, no such thing as a “miracle method” which will guarantee native-like proficiency for all students, a number of successful methods of language teaching which lead to acquisition have been developed in recent years, among them: Total Physical Response, the Natural Approach, Counseling-Learning, Suggestopedia.

Methods for language acquisition emphasize the importance of a “low-anxiety” environment, as well as the personality of the teacher and student/teacher rapport. The classroom atmosphere is non-threatening and there is constant positive feedback regarding student achievement. Learning by these methods is “holistic” in that the

learning process contributes to the personal growth and satisfaction of the student.

Language-acquisition methods are based on the way in which children learn their native tongue, a "successful" approach in which listening comprehension precedes speaking which, in turn, precedes reading and writing. Such memory-enhancing and linguistic-structuring devices as games, songs and play activity are utilized (or emphasized); frequent use may be (or is) made of role-playing and/or role reversal (in which the student plays the teacher).

Learning or acquiring a second (or foreign) language should be a "natural" experience. In language-acquisition methods, emphasis is placed on communicative competence and language materials are, at least initially, in the form of such realistic utterances as commands and dialogues. Materials used or topics discussed are based on situations students would normally encounter in everyday life.

In "modern" methods, language is perceived globally or in chunks or blocks. Attention to detail or fine tuning comes later. Language-acquisition methods are based on wholes and gestalts, patterns and simultaneous processing; to paraphrase Asher (1993, p. 2–25), they play to the right hemisphere of the brain.

Methods for effective language acquisition—those which play to the right hemisphere of the brain—may be divided into three categories: (a) physical, (b) creative, (c) assimilative. Creative methods may be divided into "directive" and "non-directive." Total Physical Response illustrates (a); the Natural Approach is a good example of a directive, creative method; Counseling-Learning illustrates the non-directive, creative category; Suggestopedia and its derivatives (including Suggestive-Accelerative Learning and Teaching [or SALT] and Acquisition Through Creative Teaching [or ACT]) are the best manifestations of (c).

While a number of methods and approaches incorporate physical activities into the language classroom, the method which best illustrates "physical activity" is Total Physical Response in which language and body movement are synchronized through action responses and the use of the imperative. To paraphrase Lynn Dhority, Asher has given us an excellent strategy for engaging our students' physical energies, which are either totally overlooked or woefully neglected in most educational settings (Dhority, 1992, p. 31).

According to its founder, James Asher, Total Physical Response (or TPR) is a learning strategy that is based on the way in which children learn their native language: through the coordination of speech and action and in a stress-free setting.<sup>1</sup> Asher believes that there are three

critical elements in the learning of one's first language and that each of these elements should be applied to the acquisition of a second (or foreign) language.

The first element to be considered is that listening precedes speaking. When children learn their native tongue, they demonstrate a listening comprehension of many complex utterances before they actually produce any intelligible speech. Secondly, listening skill is acquired, according to Asher, in a particular way, through an intimate relationship between language and the body or bodily movement. Utterances, usually commands from adults, are used to manipulate or direct the orientation, location and locomotion of the child's body. The child moves in space or makes gestures in answer to such commands as "Come here!" "Don't make a fist when I'm dressing you!" "Pick up the red truck and put it in the toy box in your room!" Language learning in childhood is based on action responses and play activity. Thirdly, the acquisition of listening skill produces a "readiness" for the child to speak. In Asher's opinion, speaking is like walking in that attempts to speed up the appearance of this "behavior" before the child is ready to manifest it may be futile. As listening comprehension develops, there comes a time when the child is ready to speak, when he (or she) spontaneously begins to produce utterances.

Asher's hypothesis is that the brain and the nervous system are biologically programmed to acquire language, whether the first or the second, in a particular sequence and in a particular mode. The sequence is listening before speaking and the mode is the synchronization of language with the individual's body movements. Language is orchestrated to a choreography of the human body. Whether learning a first or second language, the learner should first internalize a "cognitive map" of the language in question through listening exercises. Listening should be accompanied by physical movement. Speech and other productive skills come later. An important condition for successful language learning is the absence of stress. The key to stress-free learning is to create (or recreate) the natural bio-program for language development and to capture (or recapture) the relaxed and pleasurable experiences that accompany learning in childhood.

Asher uses his ideas regarding the way in which children learn their native tongue to build his instructional strategy for children or adults learning a second language. His "strategy" is based on the following principles: (a) listening comprehension should be developed in advance of speaking; (b) understanding the foreign language should be developed through movements of the student's body; (c) the instructor

should not attempt to force speaking in a beginning class. At a given point in time, the individual student will spontaneously begin to produce utterances.

TPR is a teaching strategy that uses the imperative form to teach vocabulary and grammar to beginning students. (For Asher, the verb, and particularly the verb in the imperative, is the central linguistic motif around which language use and language learning are organized). The commands are carefully sequenced so that only three or four new items are presented at once. The syllabus is sentence-based, with lexical (as well as grammatical) criteria being primary in selecting teaching items. Depending on class size, between 15 and 30 new items can be presented during a 50-minute class period. Students demonstrate comprehension of a command (or a series of commands) by physical performance. One word commands ("Jump!" "Stand!" "Sit!") quickly lead to increasingly complex sentences in the imperative form. As training progresses, playful, surprising, even "zany" commands may be used. Gradually, as the course proceeds, the students are requested, but not forced, to speak using commands, to use commands to manipulate the instructor's behavior and to respond to questions. Correction of pronunciation usually focusses only on global errors when the speech is (or would be) incomprehensible. Reading and writing materials are initially based on the commands but students eventually read short excerpts from newspapers and magazines. Many teachers in the United States begin the school year with TPR and then gradually integrate textbook materials (for example, dialogues and pattern drills) after the students have been exposed to an extended period of listening—at least 15 hours. Most vocabulary and grammar concepts can be rephrased in the command format, especially those found in many beginning textbooks.

In answer to such obvious questions as how can items like verb tenses and abstractions be taught through commands, Asher provides the following answers:

1. With imagination, almost any aspect of the linguistic code for the target language can be communicated through commands. For example, the future tense can be incorporated (or "nested") into a command such as, "John will walk to the door and Mary will write John's name on the blackboard." The past tense can be incorporated into the command structure. The teacher may say, for example, "Bill, run to the blackboard." After Bill has completed the appropriate action, the teacher says, "Joan, since Bill has run to the

blackboard, run after him and give him your book.” The present and future tenses can be combined in a command such as the following: “When Michael walks to the window, Diane will write Michael’s name on the blackboard.”

2. For the teaching of abstractions, cards can be used with the foreign language term on one side and the native language equivalent on the other. The instructor can then say, “Bill pick up ‘justice’ and give it to Catherine.” “John, throw ‘government’ to me!” Non-physical vocabulary items and non-physical structural features can be embedded in motor responses. The instructor may say, for example, “Mary, pick up the picture of the ugly old man and put it next to the picture of the government building.”

Learners in Total Physical Response have the primary roles of listener and performer. They listen attentively and respond physically to commands given by the teacher. Learners are required to respond both individually and collectively. Content is determined by the teacher who plays an active and direct role in Total Physical Response. According to Asher, the instructor may be compared to the director of a stage play in which the students are the actors. The teacher is encouraged to be well prepared and well organized so that the lesson flows smoothly. (Asher recommends detailed lesson plans). Classroom interaction and turn taking is teacher rather than learner directed.

Asher believes that not all instructional problems in teaching a second language can be solved with one approach and that variety is essential to maintaining the student’s attention and continued interest. Nonetheless, from his more than 25 years of research in TPR, Asher declares that most students (80 per cent) can rapidly internalize the linguistic code—the structure of the language and vocabulary—when language is synchronized with actual body movement. In studies conducted in the United States, it has been found that consistently superior results in listening skill have been achieved by students using TPR over students using such other approaches as the audio-lingual method. In languages such as Spanish where there is a “fit” between orthography and phonology, there is a large degree of positive transfer of learning in TPR from listening comprehension to other skills such as speaking, reading and writing. Concerning speaking, in particular, there is a very positive transfer from listening comprehension to production: after some 60 hours of instruction in, say, Spanish, much of which is directed to listening, students can invent skits and act them out. (The goal in TPR is a spontaneous shift from listening to a level

of production in which the student's vocal output is intelligible to a native speaker). Studies in the United States have also confirmed that physically responding to commands improves (a) short-term memory; (b) long-term memory; and (c) the ability to transpose linguistic elements in order to comprehend novel utterances.

Creative activities are a part of many communicative-based approaches and are featured in many of today's classrooms. It has been found by researchers such as Alfred Tomatis and Georgi Lozanov that songs are a particularly effective memory-enhancing and linguistic-structuring device. Games, play activity and role-playing are an essential part of Total Physical Response as well as of such methods as SALT and ACT which are derived, in large measure, from Suggestopedia. Research books in humanistic language instruction such as Gertrude Moskowitz' *Caring and Sharing in the Foreign Language Class* emphasize the relevant, the personal and the creative (in 100 exercises and 10 categories): Relating to Others; Discovering Myself; My Strengths; My Self-Image; Expressing My Feelings; My Memories; Sharing Myself; My Values; The Arts and Me; Me and My Fantasies. Beverly Galyean's *Confluent Approach*, like Charles Curran's *Counseling-Learning*, emphasizes personal growth and self-reflection in the language class.

Creative approaches may be either directive (i.e., directed by the teacher) or non-directive (i.e., those in which the teacher is a facilitator and the students determine what happens in the classroom). Developed by Tracy Terrell (with Stephen Krashen), the Natural Approach (or NA) provides us with a very good example of a "creative" language methodology, one which is directive.<sup>2</sup> The Natural Approach is based on Krashen's theoretical model of five hypotheses:

1. The Acquisition-Learning Hypothesis which claims that adults have two distinct ways of developing competence in second languages: (a) language acquisition or "picking up" a language, a process which is largely subconscious; and (b) language learning or "knowing about" a language, which is the conscious, formal knowledge of grammatical rules and concepts.
2. The Natural Order Hypothesis which states that grammatical structures are acquired (not necessarily learned) in a predictable order; no conscious sequencing of grammar is necessary for successful language acquisition to occur.
3. The Monitor Hypothesis which states that conscious learning has an extremely limited function in adult second language performance; it can only be used as a Monitor, or an editor.

4. The Input Hypothesis which states that we acquire (not learn) language by understanding input that is a little beyond our current level of (acquired) competence ( $i + 1$ ); speaking ability “emerges” after the acquirer has built up competence through comprehending input.
5. The Affective Filter Hypothesis which states that the best situations for language acquisition are those which encourage low anxiety levels and high motivation as well as self-confidence; a low filter means that the performer is more “open” to the input and that the input strikes “deeper.” Student performers with optimal attitudes have a lower affective filter.

Following Krashen’s hypotheses, the Natural Approach is based on the concept that the language classroom should be devoted to activities that foster language acquisition. Krashen and Terrell see communicative competence progressing through three stages: comprehension, early speech production, speech activities. Various techniques are used in each stage in the NA classroom.

The first principle of the Natural Approach is that comprehension precedes production, i.e., listening (or reading) comprehension precedes speaking (or writing) abilities. The starting point in language instruction is to provide comprehensible input to the students. In accordance with this aim, the instructor always uses the target language; the focus of the communication is on a topic of interest to the students; through gestures and other means, the instructor always strives to help the students understand what is being said. The NA is based on the premise that new words are acquired when they are heard in an utterance that is comprehensible. Students in the NA must develop a reasonably extensive passive vocabulary in the early stages of instruction; Terrell and Krashen recommend a recognition level of 500 words before extensive early production is attempted.

The second general principle of the Natural Approach is that production is allowed to emerge step by step. These steps typically consist of (a) pre-production or response by nonverbal communication (as in TPR); (b) response with a single word, such as “yes” or “no”; (c) combinations of two or three words; (d) phrases; (e) sentences; and finally (f) more complex discourse such as dialogues and interviews. In the NA classroom, students are not forced to speak before they are ready to do so. In addition, speech errors which do not interfere with communication are not corrected directly; Terrell and Krashen believe that constant correction of speech errors may lead to language learning, but not to language acquisition.

The third general principle is that the course syllabus consists of communicative goals. Classroom activities are organized by topic, not grammatical structure(s). Topics involve real-life situations and functions. While short, simple grammatical explanations may be used in the classroom, NA advocates claim that grammar (as well as vocabulary) will be effectively acquired if goals are communicative.

The final principle of the Natural Approach is that language activities in the classroom must lower the "affective filter" of the students. Topics must be interesting and relevant; students should be encouraged to talk about themselves, their families and friends; to recount their experiences; to express their ideas, opinions, emotions and feelings. The instructor must enjoy good rapport with the students and must create a "low anxiety" environment which is conducive to language acquisition. In addition, he (or she) is the primary source of comprehensible input in the target language for the students and is required to generate a constant flow of language input while providing a multiplicity of nonlinguistic clues to assist students in interpreting the input. (The Natural Approach demands a very center-stage role for the teacher).

The core of the NA classroom is a series of acquisition activities which introduce new vocabulary; provide the required comprehensible input; create opportunities for student oral production; and instill a sense of group belonging and cohesion that contributes to the "lowering of the affective filter." Acquisition activities belong to four groups: affective-humanistic, information and problem-solving, games and recreation, content. Affective-humanistic activities comprise dialogues, interviews and visualization exercises. Problem-solving activities include: tasks; charts, graphs and maps; advertisements. Word games, action games, contests and adaptations of television game shows constitute examples of recreational activities. Content activities could include: slide shows, panels, individual presentations, films, television reports, news broadcasts, guest lectures, readings and discussions on culture. (The selection, reproduction and collection of materials is very much the responsibility of the Natural Approach teacher).

The Natural Approach is designed primarily to enable a beginning student to reach an acceptable level of oral communication. Reading and writing, however, can play an important role in the NA classroom. The Natural Approach allows reading to begin as soon as the students know enough of the target language to derive meaning from the text. Texts chosen must be at a suitable level of complexity and must be interesting to the students. Writing is included in a NA class to record

and review vocabulary in the pre-speaking stage; as an integral part of an oral activity; as a practice in Monitoring (i.e., a check on the accuracy of output); as a practical goal.

It is claimed by advocates of the Natural Approach that communicative-based approaches generally produce results superior to any cognitive or habit-drill based approach. Accounts of success with such approaches, including the NA, necessarily tend toward the personal (or subjective), given the large number of variables involved.

Community Language Learning (or CLL) is a non-directive, holistic, creative and dynamic approach based on the theories elaborated by Charles Curran and designed to ease the learner into independence and confidence in the target language.<sup>3</sup> CLL is a special or particular application to language teaching of which Curran calls Counseling-Learning. CL(L) is not just a pedagogical method, however, but a veritable philosophy of learning which provides profound and even quasi-theological reflections on humankind. It is an approach which has its roots in humanistic psychology and which attributes a great importance to the learner, not only as an individual but as a member of a special group.

In Community Language Learning, non-directive techniques as well as a psychotherapeutical orientation guide (or govern) the relations between the students and the course-instructor who is referred to as a facilitator, an animator, a mediator or a regulator. (The godlike position attributed to the professor, while it gives him [or her] great prestige has also, in Curran's view, the painful adverse effect of removing him/her from any sense of sharing or belonging to the group). The teacher must not only be a competent linguist but also a supportive psychologist-counsellor who can relate cognition to feeling and who can create an atmosphere of security in the classroom. (Occasionally in a CLL course, there are two "instructors": one who works on the level of group dynamics; the other who constitutes the source of linguistic information). CLL has as its goal the development of communicative competence in a second (or foreign) language but, according to Curran, the learning of a foreign language, based on the desire to communicate with others, provides for holistic learning, personal growth and self-development. The student acquires greater self-esteem while he (or she) acquires communicative competence in the second (or foreign) language. A warm relationship between knower and learner activates in the student a steady growth in self-worth and security.

In second language learning the whole new dimension is added of the growth of another self: a French-self, a Japanese-self, and so on,

depending on the language being learned. In addition, in Community Language Learning, learners become members of a community (their fellow learners and the teacher) and learn through interacting with members of the community. Learning is not viewed as an individual accomplishment, as something that occurs in isolation or through competition with others, but as something that is achieved collaboratively with other learners and knowers.

According to Curran and his disciples, the learner progresses through a series of stages (five) in his/her experience of learning: from dependency to independence. The important elements of the learning experience are referred to by the acronym SARD. S stands for Security (unless learners feel secure, they will find it difficult to enter into a successful language experience). A is for Attention (as well as Aggression) of the learner (attention is an indication of the learner's involvement in learning; aggression applies to the way in which a child uses his/her new knowledge as a tool for self-assertion). R stands for Retention and Reflection (if the whole person is involved in the learning process, what is retained is internalized and becomes a part of the learner's new persona in the foreign language; reflection is a consciously identified period of silence within the framework of the lesson for the student to focus on what s/he has learned, assess his/her present stage of development and reevaluate future goals). D denotes Discrimination (when learners have retained a body of material, they are ready to classify it and see how one thing relates to another; the discrimination process gradually becomes more refined and ultimately enables the students to use the second or foreign language for purposes of communication outside the classroom). The various phases of the language course (or even of the language lesson itself) correspond to the progression from dependency to independence and manifest the constants included in the acronym SARD.

According to CLL advocates, five stages of language learning are paralleled by five stages of affective conflicts. The process of learning a new language is like being reborn and developing a new persona, with all the trials and challenges that are associated with birth and maturation. The five stages of growth (which are similar to those in which an individual grows from childhood to independent adulthood) are as follows:

**Stage 1.** The learner is like an infant, completely dependent on the knower (or teacher) for linguistic content. During this stage of total dependence on the language counsellor, feelings of security and

belonging are established. Students express their ideas in their native language, then communicate these ideas to the group in the foreign language, as the counsellor slowly and sensitively gives each word to the learner-client. In this, the learner's maximum security stage, the teacher's role is that of a nurturing parent, responsible for providing a safe environment in which "infant" students can learn and grow.

**Stage 2.** The learner begins to speak the foreign language directly to the group. Words and phrases are picked up and retained and student confidence increases with attempts to speak in the foreign language. The learner becomes more assertive and achieves a limited measure of independence vis-à-vis the "parent" or teacher.

**Stage 3.** This is the separate-existence stage. The learner acquires ever greater confidence, independence and insight into the relationship of phrases, grammar and ideas. He (or she) speaks directly to the group in the foreign language and translation is only given when a group member requests it. In this stage, learner/knower (or student/teacher) interactions may be resentful and indignant; the learner may need to assert his or her own identity and often rejects unasked-for advice.

**Stage 4.** This stage is considered as a kind of adolescence. The learner functions independently and learns how to elicit from the teacher the advanced level of linguistic knowledge the latter possesses. The teacher/counselor directly intervenes where grammatical errors and mispronunciations occur, or where a complex expression is needed. Relations between counselor and client become tolerant. The learner is now secure enough to take criticism.

**Stage 5.** This stage is characterized by independent and free communication in the foreign language. The teacher/counselor may intervene to offer correction but generally does so only to add idioms and more elegant constructions. Relations between teacher and student(s) are characterized by independence. Certain students may become counselors to less advanced learners while profiting from contact with their original counselor/knower.

As is true of most language methods, CLL combines innovative learning tasks and activities with conventional ones. They include: (a) translation (a learner whispers a message or meaning he or she wants to express, the teacher translates it into the target language and the learner repeats the teacher's translation); (b) group work (small-group discussion of a topic, preparing a conversation, preparing a story for presentation to the teacher and the rest of the class); (c) recording

(students record conversations in the target language); (d) transcription (students transcribe utterances and conversations they have recorded for practice and analysis of linguistic forms); (e) analysis (students analyze and study transcriptions of target language sentences in order to focus on lexical usage or grammatical rules); (f) reflection and observation (learners reflect and report on their experience of the class; this "reflection" usually consists of expressions of feelings, whether positive or negative); (g) listening (students listen to a monologue by the teacher involving elements they might have elicited or overheard in class interactions); (h) free conversation (students discuss freely with the teacher or with other students what they have learned and their feelings about what [or how] they have learned).

Community Language Learning places unusual demands on language teachers. They must be highly proficient in both the native language of the students and the target language to be learned. In addition, they must be familiar with, and sympathetic to the role of counselors in psychological counseling. Resisting the pressure to "teach" in the traditional sense, the teacher must be relatively non-directive, operate without conventional materials and depend on student topics to shape and motivate the class. He (or she) must be prepared to accept and even encourage the "adolescent" aggression of the learners in their striving for independence. In addition, the instructor must be prepared to deal with potentially hostile learner reactions to the method. Special training in Counseling-Learning techniques is usually required for CLL instructors.

Explicit linguistic or communicative objectives are not precisely defined in the literature on Community Language Learning. The course progression is topic based, with learners designating the things they wish to talk about and the messages they wish to communicate to other learners. Materials may be developed by the teacher as the course proceeds; a formal textbook or syllabus, however, is seen as a restriction on student development and interaction. However, in spite of the seeming pedagogical disorder of this approach and the focus on oral fluency rather than accuracy, the strategies used in CLL awaken the learner's attention as well as his/her capacities of reflection and discrimination. According to many master's and doctoral theses as well as numerous courses that have been taught using Counseling-Learning principles, Community Language Learning improves interaction and communication in the classroom and produces very good results in language acquisition. Because of the climate of security created in the classroom, the students acquire a better self-image.

Supporters of CLL emphasize the positive benefits of a method that centers on the learner(s) and stresses the humanistic side of language learning and not merely its cognitive or linguistic dimensions.

The third category, "assimilative," involves, among other things, relaxation and visualization exercises and special presentation of language materials over an appropriate musical background. A number of "modern" approaches involve or incorporate elements based on unconscious assimilation or indirect attention—among them, Soviet hypnopedia, the Tomatis Method and Sophrology. Methods for unconscious assimilation—and, in particular, Suggestopedia, its variants, its adaptations and its background elements—are the subject of this book. Part I of *Suggestopedia and Language Acquisition* deals with the theories behind Suggestology and Suggestopedia, in addition to the original suggestopedic language class which was developed in Bulgaria in the late 1960s and early 1970s. Part II discusses the various background and complementary elements to the original version of Suggestopedia: suggestion, yoga, baroque music and music therapy, the teacher as Pygmalion, nonverbal communication and brain research. The third section examines related methods based on unconscious assimilation: Soviet sleep-learning, Sophrology, the Tomatis Approach and the Suzuki Method for music learning. In the fourth and final section, versions and variants are discussed: the second version of Suggestopedia which was developed in Bulgaria in the mid-1970s; Schuster's Suggestive-Accelerative Learning Techniques; Dhority's Acquisition Through Creative Teaching; and the author's own personal views on how Suggestopedia can be adapted for use in the conventional language classroom.

It is Suggestopedia and its derivatives which best illustrate the third category: voice quality, suggestion, peripheral stimuli, an atmosphere of psychological relaxation and special concert presentations are all used to enhance the "absorption" process. As we shall see, Suggestopedia makes great demands on its teachers; in addition to proficiency in the target language as well as the native language of the students, suggestopedic language instructors must have good voice quality; acting abilities (including effective use of body language); knowledge of music, suggestion and relaxation techniques.

According to Bulgarian statistics, Suggestopedia speeds up (or speeded up) learning 5 to 50 times. Studies that have been conducted in the United States by researchers using the SALT Method have shown that adaptations of Suggestopedia, when properly used by a competent and personable teacher in a positive classroom

environment, have speeded up learning and improved retention by 2.5 to 3 times (Schuster and Gritton, 1986, pp. 34 ff).

According to media experts such as the late Marshall McLuhan, television has fundamentally altered the way in which students absorb information. The "modern" language methods referred to or discussed in this introduction are especially appropriate for use in today's classrooms as they are based, in whole or in part, on indirect attention or unconscious assimilation and bring into play the right and left hemispheres of the brain. Many teachers and instructors—particularly in the United States—are using these approaches, alone or in combination and/or are employing "right-brain" strategies for effective language acquisition within the framework of a conventional or traditional language class.

## NOTES

1. The section on Total Physical Response is a compilation of the various writings on the subject by its founder. See: Asher, 1966, 1969, 1972, 1974, 1993. See also: Wolfe and Jones, 1982.
2. The section on the Natural Approach is a summary of the main ideas in Krashen and Terrell's book, *The natural approach* (1983). See also: Krashen, 1982; Krashen, Terrell, Ehrman and Herzog, 1984; Scarcella and Krashen, 1980; Terrell, 1977, 1980, 1982, 1986, 1991.
3. The section on Community Language Learning is very largely a compilation of writings on the subject by Curran and his disciples. See: Curran, 1972, 1976a, 1976b; LaForge, 1983; Rardin, 1976, 1977. See also: Perramond, 1986; Richards and Rodgers, 1986, chap.8; Stevick, 1976, 1980.

# **Part I: Suggestology and Suggestopedia**

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## CHAPTER 1

# The Lozanovian Theory of Suggestology and Suggestopedia

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### SUGGESTOLOGY AND ITS BACKGROUND

In 1970, *Psychic Discoveries behind the Iron Curtain* by Sheila Ostrander and Lynn Schroeder brought to the attention of the West the work of Dr. Georgi Lozanov, a Bulgarian medical doctor and psychotherapist, director of the Institute of Suggestology in Sofia and founder of two separate but related disciplines: Suggestology (from the Latin *suggestio* and the Greek *logia*), the scientific study of suggestion, and Suggestopedia which, as its suffix indicates, is the application of suggestion to pedagogy. In 1971, in Sofia, Dr. Lozanov's thesis, *Suggestologia*, was published in book form in the original Bulgarian and, in North America, an unofficial English translation became available to a number of individuals. The thesis revealed very few practical details about the uses to which suggestion might be put in the classroom and, at the time, it became evident that, in order to learn about suggestopedic techniques or about the conduct of a foreign language class at the Institute of Suggestology, a personal visit to Bulgaria would be necessary.<sup>1</sup> Nonetheless, *Suggestologia* (*Suggestology*) does present a wealth of material about the Bulgarian and Soviet approach to psychology and about Dr. Lozanov's theory of suggestion.

In 1978, after numerous delays, Gordon and Breach published an official English translation of the Lozanov thesis: *Suggestology and Outlines of Suggestopedy*. Generally speaking, the official translation followed the Bulgarian original, although some sections of the original

were removed (e.g., experiments dealing with the three intonations of the first version of the suggestopedic language class); final chapters were regrouped; Soviet references were scaled down and a new chapter (6) "Characteristics of the Desuggestive-Suggestive, Liberating-Stimulating System," was added. (In this new [and final] chapter, almost 30 pages were devoted to a sample Italian lesson). In the official English translation, however, very little information was furnished on the conduct of language classes at the Institute of Suggestology or suggestopedic classes in Bulgarian schools. Indeed, at the beginning of chapter 6, we read: "a detailed description of the methodical side of this system will be the subject of another book" (Lozanov, 1978, p. 251).<sup>2</sup> (Dr. Lozanov also says that the "question of the direct and associative effects of different yoga systems will be discussed in detail in our next book" [p. 267]). It was not until 1981 that Dr. Lozanov (together with Evalina Gateva) published a teacher's handbook and not until 1988 that an official English translation was published by Gordon and Breach: *The Foreign Language Teacher's Suggestopedic Manual*. The version of Suggestopedia described in the Teacher's Manual differs, however, in a number of important respects from the first version of Suggestopedia that is referred to in the original Lozanov thesis.

To a researcher accustomed to a rational, logical presentation of theoretical points, backed up by factual details or statistical evidence, the Lozanov thesis, whether in the Bulgarian original or in its English translation, appears, on more than one occasion, to be self-contradictory and disorganized. This seeming confusion concerning the theoretical presentation of Suggestology is in marked contrast to the structured approach of the suggestopedic language class and may result from a different, non-Western training and/or from a desire to obscure a number of issues out of fear of political attack. (Some commentators have remarked, indeed, that the book by an insider, Bagriana Bélanger, entitled *La Suggestologie*, gives a more coherent account of the theory of Suggestology than the Lozanov thesis). However, after several readings of *Sugestologiia* and/or *Suggestology and Outlines of Suggestopedy*, it is possible to piece together the various theoretical elements and to fit them together in something resembling a reasonably coherent pattern.

In the introductory pages to his thesis, Dr. Lozanov says that his tome will study or elaborate upon those subsensory mechanisms or unconscious elements which, in the final analysis, have a direct, positive effect on memorization. The theory of Suggestology, then, will

be largely dealt with in its relation to Suggestopedia or, if you will, Suggestopedia has, as its starting point, psychological experiments aimed at increasing the capacities for memorization in the human brain (p. 5). Education is meaningless, says Lozanov, if new skills are not memorized and made automatic "so that they can be used as a basis for further study" (p. 6). According to modern Soviet investigations, the average individual uses a very small percentage of the capacities of his/her brain—perhaps as low as four per cent. Following the (then) Soviet line, Lozanov says that hypermnesia or "super-memory" can be achieved by a suggestive set-up or set, i.e., subsensory stimuli or signals directed towards the memory reserves of the unconscious. Yogis and others, according to investigations conducted by Lozanov and his staff in the 1960s, use these reserves in their phenomenal feats of rapid calculation and memorization of works of oral literature. Even the average individual, however, can be trained to use more of his/her brain reserves and to give these unconscious capacities a conscious expression.

The starting point for the investigations into hypermnesia made by the Institute of Suggestology was provided by Dr. Lozanov's knowledge of yoga (he is a yogi himself, in addition to being a medical doctor and psychotherapist). According to the original articles on the links between the Lozanov system and yoga—which articles provided the basis for the chapters on Suggestology in the Ostrander-Schroeder *Psychic Discoveries behind the Iron Curtain* and *The ESP Papers*—Lozanov studied hypermnesia in yogis in Bulgaria and India, he found (or knew) that hypermnesia is linked to certain techniques of relaxation and concentration and he conceived an educational system in which certain yoga exercises could be used, in the classroom, to induce super-memory in students learning basic factual materials (foreign language vocabulary, for example). The original articles (some of which appear, in translation, in *The ESP Papers*) and the sections on yoga in the Lozanov thesis are not as specific as one would like and one is obliged to ponder the often vague presentation of controversial material emanating from a communist country in the 1960s and 1970s. Nonetheless, a number of points emerge. According to *Suggestology and Outlines of Suggestopedya* (p. 7), the yogis needed hypermnesia to be able to preserve for future generations a given oral tradition. Among the Brahmins, for example, gifted children were subjected at an early age to a special kind of training which enabled them to develop their memory and to learn the vast body of ancient teachings by heart. Certain yogis had, as their sole occupation, the memorization

of sacred writings so that, even if all the ancient books of India were destroyed and only one yogi remained alive, he would be able to restore the entire literature from memory.

While in India in 1967, Dr. Lozanov witnessed a demonstration by a Bombay yogi named Sha, a lawyer by profession, in which Sha gave evidence of his hypermnesic abilities regarding figures and objects. Sha's computer-like memory had been developed after three years of yoga exercises (pp. 7-8). Since, by definition, average students would not be able to spend three years on yoga before enrolling in, say, a foreign language course, Lozanov quite obviously gave serious thought (both before and after his visit to India) to which yoga exercises could be adapted for use in the classroom so that the students could reproduce, but in somewhat modified form, the super-memory of Sha and others like him.

Although referred to somewhat obliquely or disjointedly in the thesis, it is evident that the yoga investigations of Dr. Lozanov and his staff at the Institute of Suggestology comprised two aspects: (a) an investigation of the physical exercises of Hatha yoga and a scientific measurement of changes in pulse and brain waves that occurred with each posture or *āsana*; (b) a consideration of Raja (or royal) yoga with its emphasis on mental concentration, self-discipline and meditation (p. 108). Attention was paid to the ties between Hatha yoga and Raja yoga, to the links between the Savasana posture and a state of relaxation, between certain breathing exercises and a state of mental concentration. While Lozanov says (p. 198) that "it is unnecessary to give preliminary instruction in autogenic training, relaxation or yoga savasana," he also says that "one could say that suggestopedy is built up on the basis of yoga techniques" (p. 267).

One of the reports quoted near the end of *Suggestology* (p. 427), the unofficial English translation of the Lozanov thesis, and which was omitted from the Bulgarian original, mentions that a course at the Institute of Suggestology begins with a certain preparatory training, "the aim of which is to accelerate the teaching of a given subject through suggestion (or auto-suggestion), under favorable conditions of physical and mental relaxation (auto-relaxation derived from yoga)." According to the official English translation of the Lozanov thesis, mental concentration combined with a particular form of self-relaxation creates conditions for activating the auto-suggestive mechanisms and hence the capacities of the unconscious, or reserves of the mind (p. 108).

For the proper combination of relaxation and concentration, the slowing down of the pulse and the induction of the alpha state of

relaxed alertness in which materials may be quickly absorbed, Lozanov and his staff found that the Savasana exercise of progressive relaxation and deep, rhythmic breathing were required (p. 112 and p. 114). (Student questionnaires reproduced in the Lozanov thesis refer [p. 26] to the crux of the matter—that of attaining a state of relaxation. In the Bulgarian original, some students mentioned that the breathing exercises, at least initially, proved difficult). With the aid of specified breathing exercises, the students under investigation demonstrated volitional slowing down of the pulse (p. 112). According to *Suggestology and Outlines of Suggestopedya* (p. 114), the Savasana exercise, developed in any psychotherapeutical system, such as autogenic training, is of importance as a “starting point for discovering the possibilities of paraconscious mental activity.” While in a state of relaxation, students are more suggestible and can receive information more readily—in the form of “suggestions” coming from the environment or from the teacher.<sup>3</sup>

In his thesis, Lozanov puts forward the following definition of suggestion: “Suggestion is a constant communicative factor which chiefly through paraconscious mental activity can create conditions for tapping the functional reserve capacities of personality” (p. 201). Before engaging in a philosophical and scientific discussion of suggestion and of its effects on the unconscious, Lozanov says that the phenomenon of suggestion exists in a wide variety of disciplines or areas. Suggestion is used, for example, in business, especially in advertising, to hit below the level of consciousness and to encourage consumers to buy goods without their being entirely aware of the reasons for which they are purchasing the articles in question. The suggestive power of religion, of religious institutions and leaders has been demonstrated throughout history and has been the theme of numerous books. Suggestion, according to the Lozanov definition of subsensory stimuli directed toward the unconscious, has a place in the arts. Writers must capture the attention of their readers and actors must win over their audiences by appealing to the emotions.

Like hypnosis, suggestion is usually considered to be a part of medicine in Bulgaria (as in the former Soviet Union). Suggestion is used in both the hypnotic and the waking state by the doctor or psychotherapist and Dr. Lozanov, for example, has performed painless surgical operations using suggestion and/or hypnosis, instead of anesthetics. Both suggestion and hypnosis are used in the former Soviet-bloc countries to cure neuroses and psychosomatic illnesses and to affect physiological and biochemical processes.

According to the Lozanov thesis, spoken instructions (combined with the attitude, expectation and authority of the doctor) have a suggestive nature, by definition, and engage the unconscious mental activity of the patient. In so-called "placebo" therapy, the value of suggestion is all-important; what is decisive is the tone of voice and gestures the doctor uses in order to achieve the desired therapeutical effect (p. 175). Experiments have shown that, in many cases, a placebo or medicine given to humor, rather than cure the patient has actually been effective in the treatment of certain psychosomatic diseases. Suggestion may be used to eliminate the mental strain or physical pain connected with the illness; to establish a regime of rest; to achieve mutual confidence between doctor and patient; to remove the negative effect of certain stimuli related to the senses; to bring about an extended period of physiological sleep; to organize proper nutritional habits; to improve motivation and attitudes (p. 49).

In teaching, it is well known that there are popular and/or well-respected instructors with whom it is easy to learn and who maintain discipline effortlessly (p. 2). According to the Lozanov thesis, it is quite obvious that there exist certain psychological or pedagogical techniques which are quite often unnoticed by the teachers themselves but which nonetheless help them to attract and to keep the attention of their students. More generally, suggestions or subsensory signals, both positive and negative, constantly emanate from the physical and social environment in which we live and these are often absorbed into the unconscious mind before being observed and/or analyzed by consciousness. Why do certain environments and certain individuals or groups have a depressing effect on us while others create a positive impression? Lozanov claims that the subsensory stimuli or signals coming from the milieu or from a given individual or group may affect us more directly than phenomena perceived by the conscious mind. Such elements in the pedagogical process as the physical set-up of the classroom, the teacher's facial expression, tone of voice, attitude towards the students—all of which constitute signals directed toward the unconscious—may be more directly responsible for results achieved by the students than the actual logical presentation of the material taught (p. 160).<sup>4</sup> According to Lozanov, subsensory reactions, if provoked by a specific system, can affect memorization irrespective of the fact that the persons under investigation are not aware of the existence of these reactions (p. 4). The aim of Suggestology is to investigate the weak, or unnoticed suggestions (or suggestive signals) which come from the physical and social environment and which are

absorbed into the unconscious mind before receiving a conscious expression (p. 33). The characteristic features of suggestive phenomena are directness, automation, speed, plasticity, precision and economy (pp. 72 ff).

In his discussion of the unconscious and of subsensory stimuli or suggestive signals affecting the unconscious, Dr. Lozanov is very much influenced, as one might expect, by Soviet psychological theory. (It is to be noted that the Lozanov thesis, *Sugestologiya*, was written for a [then] Soviet university, the University of Kharkov, and that Bulgaria closely followed the Soviet party line at the time the thesis was written and presented). Although more complex than it is often presented, Soviet psychology is very largely based on Marxism-Leninism and the theories of I. P. Pavlov. In the Soviet perspective, mental operations are properties or products of the brain, the highest form of organic matter; it is impossible to understand mental operations without a knowledge of the cerebral processes which underlie mental activity. Consciousness is a reflection of the objective (or external) world; in explaining mental processes, therefore, the psychologist, following Lenin's theory of reflection in which ideas are reflections of the material world, must take into account the objective reality these processes reflect. Neural-mental activity is conditioned by the form of existence of living beings and varies with changes in the form of existence. The development of human consciousness is therefore conditioned by changes in the material life of society and must be studied, not in the abstract, but in a concrete historical setting. Psychic life develops in accordance with variations in the structure of the organism; human consciousness is linked to the development of humankind's social being. Consciousness is formed in practical activity and revealed in the course of activity. Changes in the content and form of practical activity can, therefore, greatly influence the organization and development of mental processes.<sup>5</sup>

In the Soviet view, the Freudian idea of the unconscious (or subconscious) is the exclusive property of Western bourgeois psychology, with its overtones of morbid sexuality, decadent individualism and subjectivism. In the "thaw" of the 1960s, however, while continuing to remain firmly opposed to the Freudian idea of the subconscious, Soviet psychologists were obliged (or permitted) to recognize the fact that there exist in humans certain cognitive activities which affect behavior and which take place, as it were, beneath the threshold of consciousness. Unconscious forms of higher nervous activity were said to be cerebral processes which do, indeed, exist. Cognitive processes

not entering consciousness could be said to regulate the activity of humankind in the manner of Pavlovian signals (Bassin, 1969).

Following the example of such prominent Soviet psychologists as F. V. Bassin, Lozanov presents arguments for the existence of the unconscious within the framework of dialectical materialism (or Marxism-Leninism), the Soviet physiological tradition of Sechenov, Bekhterev and Pavlov and the concept of the "set" as expounded by the Georgian psychologist, D. N. Uznadze (p. 37). The unconscious is discussed in terms of a functional condition of the nervous system and unconscious phenomena in terms of the memory of the brain. Suggestions are signals which emanate from the material world and which influence the nervous system. According to Bassin (and Lozanov), without a concept of the unconscious, it is impossible to understand automated (or automatic) actions, the function or structure of certain acts of behavior, the nature of dreams, motivation and resistance to disease (p. 91, p. 132, p. 170).

Lozanov claims that he is following in the footsteps of I. P. Pavlov (p. 35), the most illustrious and best-known representative of the Russian school of physiological psychology, in defining suggestion from a physiological point of view as a typical conditioned reflex or temporary connection between organism and milieu (p. 58). Pavlov called the first signalling system that stream of stimuli which comes from the external world and which "signalizes" those objects necessary for the survival of the organism in a given environment. While this system is common to humankind and the higher order of animals, there is, in humans, a second line of signals (or stimuli) made up of words. Words or speech do not directly "signalize" reality but rather the data of the first signalling system. Words are, therefore, "signals of signals" and, as such, constitute the Pavlovian second signalling system. Both forms of conditioned reflexes are acquired through individual experience in the course of ontogenesis and both enable the individual to adapt him (her)self to the changing conditions of his/her environment. According to the Lozanov thesis, not only conscious, but also unconscious mental activities occur in the interrelation of the two signalling systems (ideomotory, speech), especially when the nervous system is in a state of inhibition (i.e., in an inhibited, as opposed to an active state). In making this connection, Lozanov follows the reasoning of his mentor, F. V. Bassin who says:

It is possible for various complex and psychologically rich experiences to be suppressed so that they are removed from consciousness but

meanwhile remain intact in an inhibited condition so that, in the future, with weakening of inhibition, they will again enter consciousness. One may find numerous indications of this fact in the Pavlovian "Lectures on the Function of the Large Hemispheres," in "Pavlovian Clinical Wednesdays," and in many other sources (Bassin, 1969, pp. 403-404).

Lozanov's views are in accordance with the Soviet psychology of the 1960s in which the Pavlovian conditioned reflex is said to be a phenomenon both physiological and psychological. Mental activity is higher nervous activity.

Within the tradition (or confines) of Soviet psychology or neurophysiology, there have been few attempts at a systematic review of the complex forms of unconscious cerebral activity which are determined by the concrete psychological content of an objective situation and which, in turn, influence objective behavior. The only acceptable explanation of the unconscious in the Soviet Union in the 1960s and 1970s was the theory of the "set" as expounded by D. N. Uznadze and as researched at the Uznadze Institute of Psychology of the Academy of Sciences of the (then) Georgian Socialist Republic.

The model experiment (and the simplest one) conducted in the Uznadze Institute to demonstrate the phenomenon of "set" consists in the following (p. 125): For several trials in a row, a subject (with eyes closed) is given two spheres of equal weight but different volume, one in each hand, each always in the same hand. Then the subject is given spheres which are the same in both volume and weight. Asked which of these spheres is larger, the subject as a rule in this "critical" trial answers that the balls are of unequal size and that the larger sphere is in the hand which previously received the smaller sphere. According to Uznadze, underlying this "contrast illusion" of size or weight is a particular "internal state" or a peculiar change of the functional condition of the central nervous system. Analysis of this "state" or functional disturbance makes it possible to throw some light on its characteristics (Uznadze, 1966).<sup>6</sup>

First of all, this condition or set is completely dependent on the series of trials preceding the critical trial; it usually fails to appear in the absence of these preceding trials. Therefore, in principle, it appears to be a peculiar, extremely complex reflex reaction of the subject to an objective influence. Balls of equal size are perceived as being of unequal size in view of the fact that their perception was preceded by fixation of the set towards the perception of a larger and a smaller ball. Having been formed, the set is preserved over a given interval of time as a functional disturbance which may be objectively displayed by

appropriate experimental measures but which is not directly available to the subject's consciousness. Notwithstanding its unconscious character, the set influences succeeding conscious experiences, predetermining in certain respects their character and dynamics. The set arises in response to stimulation of a complex character and appears as a change of a complex type which is not localized within the limits of any one physiological system. The set has primary central neural components, the physiological explanation of which can only be provided by means of such research methods as electroencephalography, autocorrelation analysis, analysis of potentials using computers and so on. And finally, the set is not equally connected with the various cerebral systems, which makes it possible to speak of a certain cerebral localization of these conditions (Bassin, 1969, pp. 414–415).

According to Soviet psychologists, the concept of set provides an interpretation of the unconscious in terms of objective changes in the functional condition of the nervous system and as a special form of higher nervous activity, reflexly defined by environmental factors and influencing, in turn, the ultimate behavior of the subject. In his thesis, Lozanov expresses the Soviet view that the Uznadze set is a state which is unconscious. Suggestion, especially spoken suggestion, creates the set and activates the reserve capacities of the mind. Hence, in the foundation of suggestion obviously lies the mechanism of the set.

Suggestion, through paraconscious mental activity, operates with the setup and with the paraconscious aspects of the personality's attitudes, motivation, expectancies, interests and needs. The better the means of suggestion are oriented to the paraconscious aspects of these mediators, the greater can be one's expectation of a considerable effect (p. 126).

In accordance with the Soviet psychology of the 1960s, Lozanov's *Suggestology and Outlines of Suggestopediy* emphasizes that the important role of unconscious mental activity cannot be denied (p. 74). There exist many facts in life and in clinical practice, from human hypnosis to physiological experiments, which show the importance of extraconscious mental activity for the correct understanding of the individual in sickness or in health (pp. 74–75). The Lozanov thesis outlines three elements which prove the existence of the unconscious: unconscious mental activity during sleep (dreams, in particular); unconscious mental activity during hypnosis (age regression, for example); unconscious mental activity during a normal state of wakefulness (so-called extrasensory perception or the absorption of subliminal stimuli from the environment).

Unconscious mental activities during sleep are many and diverse. Scientists and artists (Lozanov mentions Mendelejev and Coleridge, among others) have received creative inspiration for their work during sleep; modern psychotherapy and medicine use techniques of suggestion during sleep for the process of healing. The creative unconscious mental operations during sleep may take the "free" form of uncontrolled dreams or these processes may be controlled for healing or education. Suggestions given to the patient during natural sleep at night are most often made without the patient's being able to remember the psychotherapeutical procedure itself (p. 75); nevertheless, these suggestions, made during night sleep, are carefully monitored by the doctor or psychotherapist and the patient must be trained or prepared in advance to receive them. Soviet hypnopedia or sleep-learning makes controlled use of unconscious mental processes during sleep for purposes of instruction in basic factual materials (see note, p. 76); the students are carefully trained in advance to program their sleep and to receive the appropriate materials (items of foreign language vocabulary, for example) and the programs themselves are carefully worked out beforehand and recorded on tape in a suitable tone of voice by the instructor(s). In his discussion of unconscious mental activity during sleep, Dr. Lozanov refers to (a) the Pavlovian work on physiological conditions of sleep (on which, for example, the Soviet theoretical framework of hypnopedia is built); (b) electroencephalographic investigations of sleep; (c) discussions of "paradoxical" or "rapid-eye movement" sleep (as distinct from "orthodox" sleep).

The problem of sleep began to be investigated by Pavlov in the course of his experiments with animals (p. 78). During a number of experiments, the animals fell asleep and this hampered further work. Originating by accident, sleep became a subject of inquiry. According to Pavlovian theory, the brain is constructed from an astronomical number of brain cells or neurons. The two main functional states of living neurons are the states of excitation and inhibition. The excitation of neurons can increase and enhance the activity of certain parts of the brain and also the organs with which certain neurons are connected. Inhibition, on the other hand, can "block" or "brake" large parts of the brain's "excited" sections (cerebral areas) and even deactivate the function of certain organs. It is important to note that even the simplest response of an organism is impossible unless the two states, excitation and inhibition, occur simultaneously. In the course of his experiments with animals, Pavlov established that sleepiness and sleep occur when the process of inhibition begins to gain the upper

hand in the constant interaction between these two processes of excitation and inhibition.

Pavlov elaborated the protective and restorative role of internal inhibition (i.e., sleep): the process that is so important in regulating and coordinating the central nervous activity which controls the entire organism. Pavlov claimed that inhibition is not a period of inactivity of the neurons. Rather he regarded the nature of sleep not only as a reduction of the external activity of the nerve cells but also as a considerable activation of the internal and restorative processes. Inhibition, paradoxically, is a highly active process within the neurons but this activity is of a special kind; sleep is a manifestation of protective and preventive inhibition occurring in the neurons of the brain. During internal inhibition, the neurons of the brain are "cut off" from external activity and nearly cease to respond to environmental signals. The "inhibited activity" of cerebral neurons during sleep is directed to specific functions, including perhaps their own repair on a biochemical level. For Pavlov, sleep is a necessary phase in the existence of the nervous system. Sleep is inherent to each cell.

Both Soviet and Western ideas support each other in that, during the fluctuation of excitation/inhibition and vice versa, inhibition of large cerebral areas (sleep on a physiological level) does not occur at once but gradually.<sup>7</sup> This gradual onset of internal inhibition or sleep is observable by studying the various channels of an electroencephalograph. As an EEG is recorded from currents of a multi-electrode device on the surface of the skull, it is possible to distinguish the bioelectrical activities of various cerebral areas. By comparing, for example, one area of the brain with another, one channel can show signs of sleep and the other signs of the waking state.

According to Pavlovian theory, before the onset of deep sleep, on the one hand, or the fully alert state, on the other, the brain cells are subjected to a number of intermediate states ("phasic states") on their functional level. The various stages of sleep may be distinguished from one another by the frequency and amplitude of the brain waves as shown on the electroencephalographic tracings. The four main types of brain waves (alpha, beta, delta and theta) differ from each other by their oscillation frequencies and changes in their voltage are also subjected to alternation which can be caused by a number of factors.<sup>8</sup>

Electroencephalographic features of the cyclical variation of sleep stages during the entire night showed Soviet researchers there were two distinguishable types of sleep: orthodox sleep and paradoxical sleep. Orthodox (or slow-wave) sleep has a higher index of

slow-frequency (theta and delta) components while paradoxical (or fast-wave) sleep has a significantly high index of fast-frequency (beta and alpha) low-voltage components similar and sometimes identical to those of the waking state. Scientists comparing the eye movements during orthodox and paradoxical sleep found sudden and jerky movements of the eyes in paradoxical sleep while a slow, rolling movement of the eyes was characteristic of orthodox sleep. According to the Lozanov thesis, rapid eye movements occur four to five times during the period of night sleep (these periods last from about five minutes to about one hour) and are accompanied by accelerated pulse and breathing rates (pp. 88 ff). The rapid eye movements, which appear during paradoxical sleep, provide the name of REM sleep which has a high incidence of dream recalls. Lozanov's investigations confirmed that the changes that occur in the EEG during rapid-eye movement sleep are analogical to the "alpha activity" that occurs during a state of wakefulness.

Following the argument of Bassin, Lozanov claims that the dreams characteristic of REM sleep are a manifestation of the unconscious (or unconscious mental activity). This logical conclusion which F. V. Bassin made in summing up the results of modern neurophysiological research, says Lozanov, fully supports the concept of the unconscious forms of higher nervous activity which play a decisive role in the "materialization of the principal internal mechanisms of suggestion" (p. 91). Soviet scientists in particular have used the period of paradoxical (or rapid-eye movement) sleep for hypnopedia or sleep-learning. Lozanov quotes Bassin to the effect that, on the basis of numerous investigations into the processing of information by the sleeping brain and into the physiological changes that accompany rapid-eye movement sleep, it may be assumed that the electrophysiological manifestations of somnolent states of mind reflect, not only the basic and vitally important metabolic activity of the nervous system, but also the unconscious processing of information (p. 91).

According to Dr. Lozanov, there are many hypnotic phenomena which demonstrate (or have demonstrated) the existence and the significance of unconscious (or paraconscious) mental activity (pp. 127 ff). Suggested physiological and psychological changes have been known to take place while the subject was under hypnosis (the elimination of pain in surgical operations, for example). The hypno-suggestive activation of unconscious mental activity can be seen with particular clarity in hypnotic experiments involving changes in a subject's personality or mental functions (p. 139). According

to Lozanov, the largest amount of experimental material in this area is that concerning the still controversial problem of hypnotic age regression (p. 139).

Personality regression, the return to a past age with its corresponding functional states, is a frequent phenomenon in Soviet-inspired clinical practice for the treatment of mental illnesses. Dr. Lozanov's first investigations into hypnotic age regression were made in the early 1950s and the results were published in 1955 and 1959. Investigations were directed toward the examination of (a) eyeball movements, (b) handwriting, (c) drawings made by the hypnotized patients being treated for neurotic ailments (p. 141). The question was asked whether the changes in the subject's behavior, speech, handwriting and world-outlook during the period of the suggested "past age" corresponded to the actual "lived-through" age (pp. 139 ff).

In experiments with hypnotic age regression, Lozanov found that, when the suggestion was made to a patient under hypnosis that he was two days old, his eye movements resembled the "floating" and "squint" eyes of a newly-born infant (p. 142). There was also a distortion of the correct eyeball position and the absence of synchronized movements. When the patient was told, for example, that he was eight years old, his drawings and handwriting resembled those of a child of eight (pp. 144-145). Although elements of later "age periods" were clearly apparent in the person hypnotized and "regressed" in age, the general behavior of the hypnotized patient(s) was that of the appropriate earlier "age period."

Lozanov puts the question as to whether the suggested, child-like age constitutes, in fact, a reincarnation of the child's personality. Or are there two types of age regression: one in which the subject recalls and replays past events and one in which the subject in actual fact returns psychically and physiologically to the suggested past functional level with the virtual disappearance of all experiences after the suggested age? And some scientists say that there is a third state which is a mixture of the two types of age regression (p. 146). Lozanov's results show that, in individual moments and for certain individual functions, true regression may be reached, in the sense of an actual return to a past functional level. Through hypnotic hypermnnesia, evidence may be collected for the characteristic features of a given suggested age, which features may then be acted out in the form of a play (p. 146). In this process of hypnotic age regression and/or play acting, materials may emerge from the patient's memories of his/her own development as well as from his/her observations of children.

Together with Soviet scientists, Lozanov found that, under hypnosis, an individual personality may show marked improvement, especially in creative potential. Hypnosis releases inhibitions (or inhibiting processes) and conditions are created for the "enlivening" of deeply suppressed and older traces. It is well known, for example, that the child is more spontaneous and "creative" than the adult and that, in addition, the former can absorb larger amounts of material into his/her more active memory. "The hypermnesia mechanisms probably extend directly to the motor functions and to wider nerve structures" (p. 147). While such "creative" manifestations as hypermnesia do not last long under hypnosis (or rather, the hypnotic state cannot be prolonged beyond a certain point), Lozanov found that the suggestion(s) involved in hypnosis can have a lasting effect, thanks to the skill of the physician or psychotherapist.

According to Lozanov, when a specific age is suggested to the hypnotized person, a necessary depth of retention is formed in order to suppress the newer and more inhibitable trace complexes and to create a temporary link with the trace complexes of the objective age. The suggestion: "Now you are eight years old" contains the following two components: (a) everything after the age of eight is non-existent; (b) there *is* an age of eight (p. 147). In the Lozanov experiments in hypnotic age regression, the drawings, handwriting and eye movements of the suggested age coincided with those of the objective age only when the age regression had been achieved successfully, i.e., when the two components (as mentioned above) were fused. This "fusion" produced a profound and sustained hypnotic state so that everything after the age of eight was forgotten (or suspended) and the general behavior was in accordance with that of a child of eight.

Hypnotic age regression shows that unconscious mental activity exists in the form of a memory of the brain—the complex of conscious and unconscious contents of the human psyche which comprise various past stages of individual development (p. 149). In general, what occurs in experiments involving complete and/or partial age regression cannot be remembered after the subject is released from a state of hypnosis. When, for example, the suggestion is given to a hypnotized person to recite a given poem two hours after release from a state of hypnosis, the individual performs this act quite automatically, without understanding the reasons for his/her action (p. 153). Once the subject emerges from the hypnotic state, the whole complicated mental activity in connection with the appropriate experiments remains outside the field of consciousness, i.e., in

the regions of the unconscious and the higher nervous activity related to it.

According to Lozanov, unconscious mental activity in hypnosis may play an important role in maintaining an individual's good health. Therapeutical ecmnesia, the forgetfulness of recent events, with normal memory (or more than normal memory) for remote ones, brings cathartically to the foreground those unfully lived-through experiences of a psychotraumatic nature which are a part of the unconscious (p. 150). Ecmnesia and age regression also have a very close and useful relationship to hypnotic hypermnesia or super-memory; the clear recollection of past events, forgotten by the conscious mind, is most dramatically manifested in the personality of a subject regressed in age who has returned to a past functional level (p. 150). According to Lozanov, it is important to emphasize that hypnotic hypermnesia is one of the essential manifestations of unconscious mental activity under hypnosis. Hypermnesia can be observed in hypnotic age regression and it can be isolated without causing other changes in personality. Lozanov claims that hypermnesia should be developed (or researched) not only in the hypnotic state but also in the suggestive atmosphere of the waking state (p. 151).

Lozanov notes in his thesis (p. 84) the relationship between paradoxical (or rapid-eye movement) sleep and the "alpha activity" characteristic of a state of wakefulness. Hypnotic sleep exists; hypnosis may be referred to as a kind of sleep; although differences have been established between sleep, hypnosis and the "alpha state" in wakefulness, there are also links between them (p. 130). According to Lozanov, unconscious mental activity can (or should) be looked for not only in sleep and hypnosis but also in a more "normal" form when we are awake. Following the line of Soviet researchers, Lozanov links the unconscious forms of mental activity in a state of wakefulness to Lenin's theory of reflection, in which signals from the material world enter the central nervous system subliminally (p. 154). Such phenomena as eyeless sight (in which the skin "perceives" light [pp. 99 ff]), extra-sensory perception (pp. 102-103), mental suggestion à la Vasiliev and clairvoyance according to Pavlov are discussed in terms of the unconscious reflection of subliminal stimuli.

An enormous body of information enters the central nervous system in the form of subliminal signals, more or less outside the scope of the conscious mind (p. 94). Theoretically, the weaker the stimulus, i.e., the further it is from the threshold, the weaker its effect on the personality. Nevertheless, in some cases of very concentrated mental work, very

strong sounds may remain unnoticed, while some weak sound may attract attention and disrupt one's work (p. 159). It has been found that, in a specific sound context, subliminal words are more easily noticed and remembered when they are longer or of more frequent usage. Emotional words used or directed subliminally may cause bioelectrical or chemical reactions (pp. 94 ff). Since Lozanov is principally interested in the links between unconscious mental activity and hypermnesia and in the development of super-memory in the waking state, his investigations into subliminal stimuli were related to the problem of memory.

At the Institute of Suggestology, experiments were conducted with the subliminal presentation of words in an unknown foreign language (Hindi, for example) to see if words presented subliminally would be memorized more easily and more effectively than words presented without benefit of subliminal or "subsensory" support (p. 95). While Hindi words in general proved difficult to memorize, it was found that those words presented first normally, then with "subsensory support" (or subliminal repetitions) were memorized more easily and effectively than words presented solely in a "normal" manner or merely with subliminal repetitions. Words presented subliminally were better memorized than words heard and/or seen with normal perception. As a result of his experiments, Lozanov concluded that subsensory support can become an efficient means for increasing the volume of words memorized (p. 95). In the original suggestopedic language class, the "subliminal method" evolved into (or rather, was combined with) the "whispering method" used in Soviet-inspired psychotherapy in which therapeutical suggestions are presented in a whisper, under the threshold of the conscious hearing of the patient, in order to overcome anti-suggestive barriers (or mental blocks to suggestion) and to affect the unconscious mental activity (pp. 95-96; p. 175).

Unconscious mental activity in a normal state of wakefulness does not only refer to subsensory and extra-sensory stimuli. It is the basis for a large number of our activities or reactions. Unconscious mental activity is not only related to perception but also to emotions, impulses, aspirations and motivations which continue to have their own existence even after they cease to be conscious (p. 104). Of particular interest to Dr. Lozanov and his staff at the Institute of Suggestology in the 1960s was the relation which unconscious mental activity has to suggestion in the classroom. Inversely, the teaching method of Suggestopedia offered an opportunity for an experimental study of unconscious mental activity.

## THE THEORETICAL ELEMENTS OF SUGGESTOPEDIA

The principal theoretical elements of Suggestopedia are derived from the idea of unconscious mental activity, in the sense of stimuli directed toward, and absorbed by the unconscious. According to the Lozanov thesis, the students must be in a suggestible state (one of relaxed alertness) while the appropriate suggestions should come from the teachers. The principal suggestive techniques used in the Lozanov classroom are: authority, infantilization, double-planeness, intonation, rhythm, concert pseudo-passiveness (or pseudo-passivity). These six elements constitute the main stimuli of unconscious mental reactions in the students.

The concept of authority is one which tends to have negative overtones in Western democratic societies (especially in North America) but the word (and the concept) quite obviously have a positive connotation within the context of Suggestology and Suggestopedia (pp. 187 ff). As Lozanov points out in the Bulgarian original of his thesis (but not in *Suggestology and Outlines of Suggestopedy* where the Soviet references tend to be scaled down), the idea of authority in Suggestology/Suggestopedia comes from the pedagogical philosophy of A. S. Makarenko (as expressed, for example, in his work, *The Road to Life*) and from Lozanov's own training in psychotherapy. Both Makarenko and the Soviet-inspired medical tradition emphasize genuine authority (as opposed to artificial, oppressive authority) which is based, in the case of a given individual, on the knowledge of one's subject, a sense of responsibility, a feeling of patriotism and a devotion to society, a sympathetic understanding of one's fellow humans. According to Makarenko, the authority of the group or collective is very important and the individual is expected to subordinate his/her desires to the will of the group. The Lozanov thesis also speaks of the authority of the institution where the individual works, the authority of the methods practiced by the teacher or doctor, the authority of the works studied and so on. Like Makarenko, Lozanov is opposed to pseudo-authority based on repression, artificial distancing between instructor and student (or doctor and patient), haughtiness and pedantry, among other things (Lozanov, 1971a, p. 302).

It is evident that the principles of Suggestopedia derive, in large measure, from Dr. Lozanov's work as a psychotherapist and from his training as a medical doctor within the Soviet tradition. Although details of this training and specifics regarding his medical practices are rather sparse (as they are, for example, in the written works of Soviet

therapists in general), the use of authoritative suggestion in psychotherapy is outlined in *Suggestology and Outlines of Suggestopedy* (pp. 43 ff).

According to Platonov (1959, p. 228), "direct verbal suggestion on the conscious level can be successful only if it is made by a physician who enjoys authority with the patient." Lozanov echoes this Soviet view by saying that the psychotherapist must enjoy great authority in the society to which he belongs and, in order to promote this authority, preliminary meetings should be arranged between the new patient and patients who have already been cured by the physician. During treatment, a calm, tranquil atmosphere should be established and the doctor should create an impression of confidence through his voice and gestures as well as by what he actually says in words. The physician must do everything possible to assure the patient that he (or she) will be cured. Lozanov says that the psychotherapist with authority (or prestige) is a comforter for his patients, a convincing visual example of "a correct philosophical attitude towards life" and a consoling confessor (p. 44).

In Soviet-inspired psychotherapy and pedagogy, great importance is attached to the role of the group or collective. According to Makarenko, the group is the starting point of social organization. The great Soviet linguist, L. S. Vygotsky, wrote about the social origin of speech in *Thought and Language*. Patients are taken in groups for medical treatment and significance is attached to the suggestive effect that the collective has on the individual. In psychotherapy, "each patient 'takes' from the group what is required to bring him out of his particular state" (p. 43). Following the precepts of Marxist philosophy, the role of the environment—both social and physical—is also taken into account.

In the method of integral psychotherapy outlined by Dr. Lozanov in his thesis (pp. 44 ff), there is a preliminary "suggestive" preparation of patients while they are waiting to enter the consultation room; the new patients meet persons who have already been cured of ailments similar to the ones from which they are suffering. Following the example of Platonov, there is a brief conversation with each patient before he or she joins the group so that the individual can be analyzed and his (or her) difficulties, problems and maladies diagnosed. The fact that the patients are treated in groups in no way eliminates intensive care for each individual patient or member of the group. During the actual group sessions, suggestions to a given patient may be made, in a whisper, in the patient's ear. There is free abreaction at

the time of the group session for individual patients if need be. However, the process of abreaction is controlled by the physician so as to avoid its taking on dramatic proportions which would negatively affect others in the group. During the group session, there is a combination of positive suggestions and retraining in attitudes in order to bring about a change in the patients' outlook on life; the patients are helped in overcoming their involvement in petty, trivial concerns and there is a process of "psychoprophylactic training" for easier coping with traumatic situations in the future (pp. 44-45).

During the first meeting with the entire group, the physician gives a lecture which is of a re-educational and "suggestive" nature (p. 45). Individual patients who have been cured recount in front of the entire group how and why their physical and mental health has undergone such a great improvement. A demonstration may be made before the group of the power of suggestion and of the capacities of the human mind. These "demonstrations" (no details of which are given in the Lozanov thesis) give visual support to the physician's lecture and strengthen his arguments. Following the lecture and the demonstration(s), the patients are asked to relax in their chairs and listen to the voice of the physician. "A brief suggestive-autosuggestive session now takes place" (p. 45). Individual patients may be hypnotized and, if they have given their consent, their hypnotized state may also be demonstrated to the group. During the "suggestive session," most of the patients are fully awake but calm, a small number may be in a state of hypnosis and individual patients may abreact psychotraumatic experiences. Finally, after a presentation by the physician of a certain number of positive "suggestive formulae," the patients rise to their feet "in good spirits" (p. 46). The therapeutical session lasts from 30 to 50 minutes.<sup>9</sup>

As a part of the psychotherapeutical treatment process, Lozanov (following the example of Platonov) emphasizes the importance of the behavior of the entire medical staff, the relations between the individual patients, the role of the physical environment (arrangement and decoration of rooms, for example) and the significance of the social environment. "If the social and natural environments are able to cause an illness, they should also be able to cure and reeducate [the patient]" (p. 49). All negative factors in the milieu must be eliminated and a positive, health-restoring atmosphere created.

According to the Bulgarian original of the Lozanov thesis, almost every "suggestive method" relies on authority—whether this be the authority of the leader's personality, authority of dogma or belief, the

authority of logic and experience. Insofar as education or pedagogy is concerned, the authority of the teacher and the prestige of the educational establishment are all-important as they lead to greater expectancy and higher motivation on the part of the students. Authority is one of the factors in nonspecific mental (or psychic) reactivity. That is to say, the suggestive stimuli emanating from an authoritative person or source affect (or cause a reaction in) the unconscious, if not necessarily in the conscious mind. Even though the individual may be unaware of the stimuli influencing him/her, (s)he reacts, nonetheless (p. 188).

In the suggestopedic experiments conducted by Dr. Lozanov and his staff at the Institute of Suggestology in the 1960s, the suggestive power of authority was such that memorization of basic materials (foreign language words and phrases, for example) increased considerably. According to Lozanov, pupils remember best what comes from an authoritative source—a great writer, a great artist, a great teacher. In the experiments with the memorization of phrases from the poetry of a great Bulgarian writer as opposed to fragments from the work of a writer of no special importance, the students achieved much better results in the memorization of material from the great poet (p. 188). The same thought expressed by a person enjoying less prestige or authority vis-à-vis the students is not retained as well.

Students are more “suggestible” regarding the information coming from an authoritative source but this increased receptivity is usually unconscious. There is very often an emotional (as opposed to a logical or rational) reaction to authority, as in the world of great art where the essential ideas may be perceived unconsciously during the period of the aesthetic experience. The role of authority in the communication process must not be too obvious, however, for the more subtle and understated the techniques used by the one in authority, the greater the suggestibility of the recipient. Anti-suggestive barriers (critical-logical and intuitive-affective) are more easily overcome if the student (or patient) is unaware, at the conscious level, of the actual techniques being used. (The third anti-suggestive barrier, the ethical barrier, cannot, according to Lozanov, be overcome by suggestions from an outside source [p. 164]).

Since authority increases the motivation of the students, the teacher must play an authoritative role in the classroom. In order to command or suggest the memorization of material, the teacher must show the self-confidence of the trained actor. A positive, enthusiastic attitude is a part of authority and while the teacher must maintain a certain

distance between himself (or herself) and the students, he (or she) must also radiate sympathy and understanding. No negative words or gestures are to be used while discipline is being upheld and the students are being taught. Mistakes are to be corrected in such a way that the student is inspired to improve his (or her) ability.

According to the Lozanov theory, the greater the authority of the teacher (or physician), the greater the process of "infantilization" in the students (or patients) (pp. 191 ff). Infantilization, needless to say, has very little, if anything, to do with the Freudian concept of the subconscious or the Freudian idea of bringing out the patient's childhood experiences (p. 192). Like the psychotherapist, the suggestopedic teacher must suggest to the students, through the role (s)he plays, that they should have confidence in his/her ability, that they will memorize the appropriate materials easily and that they have the child's curiosity for new information. Infantilization is more easily achieved in a group because a group provides for an atmosphere of greater spontaneity—like the pleasant atmosphere of a well-organized children's team (p. 191).

Like certain forms of age regression achieved under hypnosis, infantilization does not mean a complete return to an earlier age (that of a child) but rather a "selective mental setup" (p. 192). The experience of life and the intellectual abilities of the adult are not eliminated or decreased with infantilization but certain characteristics of the child (spontaneity, confidence, ability to memorize) are brought to the fore. In the perception of works of art, for example, the process of infantilization creates a situation in which critical logic or a fixed mental attitude is overcome; as a consequence, the aesthetic experience is more direct, spontaneous and longer lasting (p. 192).

According to Lozanov, infantilization is especially important for increased memorization. It is well known that the child can memorize more easily than the adult and that, with age, the function of memory begins to lose its ability, in contrast to the growth of the powers of reason (p. 191). Inversely, the constant functioning of reason often results in decreased memorization. Apart from the barrier of logic (or reasoning), there are social ideas regarding the limitations of human memory which must be overcome.

In his thesis, Lozanov states that the tapping of the personality's reserve capacities is due to "desuggestion, i.e., freeing a person from former limiting and discouraging suggestions" (p. 184). The process of "desuggestion" in Suggestopedia is largely one of overcoming the mental blocks to greater memorization (p. 165). In childhood, new

words are memorized much more easily than in adulthood and without strain or conscious effort. (The memorization process in childhood itself is largely an unconscious one). According to Lozanov, it is only incorrect teaching methods that link memorization to great stress and strain. The maxim—everything can be acquired through hard work—is correct in theory but this maxim is wrongly interpreted if it means that the students should make extreme efforts to memorize (p. 197). Rapid fatigue and reduction of the memory capacities result. Mental and physical strain follow. Muscular tension and mental stress inhibit the process of memorization and have a negative influence on the attitude or motivation of the student. Contrary to what one might expect, concentration need not be accompanied by muscle contraction and can go together with an externally passive appearance. The outward passiveness that accompanies increased memorization in the suggestopedic classroom resembles the child's passiveness when s/he perceives and memorizes. Like the properly trained adult in a suggestopedic class, the child has a calm, normal appearance but his/her mental processes are fully active. The passivity of the conscious mind and the relaxed state of the body are essential to infantilization and increased memorization. The mind is liberated (i.e., the reserves of the mind are activated) and fatigue is alleviated.

In the achievement of infantilization, certain elements are essential. Apart from the authority of the teacher (discussed above) and the "concert" state (which will be discussed further on), the creation of a positive classroom atmosphere is very important, as is the playing of roles and games and the singing of songs (p. 192). From the very beginning of a suggestopedic language course, for example, each member of the class is given a new name (from the language he [or she] will be learning) and a new life story. This approach, derived from group psychotherapy, creates a "play situation" which liberates the students from their normal, real-life social roles and permits a more spontaneous and immediate expression of individual abilities. (In addition, mistakes, if any, are made in someone else's name and have a less inhibiting effect on performance). Such factors as the singing of songs remove the logical barriers to memorization and create a situation closer to that of the child's world in which everything is learned through play. Although the aims and goals of the course are adult ones, infantilization brings about an atmosphere of spontaneity, ease of learning and an absence of a feeling of pressure (p. 193). Infantilization helps adults to learn in a childlike (but not childish) way, under natural conditions and using unconscious factors.

The role of the environment, both physical and social, is an extremely important one in Soviet psychology deriving, as it does, from Marxism-Leninism and the physiological tradition of Sechenov, Bekhterev and Pavlov. According to Soviet psychology, the physical and social environment affects the unconscious, as well as the conscious mind and, in line with Soviet theory, Suggestology does not consider the individual apart from the environment to which s/he belongs. (Chapter 3 of the Lozanov thesis is entitled "Man and His Environment"). "Double-planeness" refers to the unnoticed stimuli (or weak Pavlovian signals) which come from the milieu (the décor of the room, for example) and from the teacher's (or physician's) personality (tone of voice, gestures) and which affect the unconscious mind of the student (or patient). These subliminal stimuli have a great influence on the student's ability to learn or the patient's chances for recovery (p. 193).

In *The Word as a Physiological and Therapeutic Factor*, Platonov says that, in psychotherapy, facial expression, gestures, attitude and approach are factors in the total situation and that the "word" is a physiological agent. According to the Lozanov concept of double-planeness, there is an enormous stream of diverse stimuli which emanate from the personality unconsciously or semi-consciously (p. 193). Quite often these unconscious signals (whether verbal or non-verbal) possess great information for the recipient. Imperceptible changes in tone of voice, gait, speech (as well as in the physical environment) can play a decisive role in suggesting the desired result (p. 160). Usually this "second plane" in behavior is a source of our intuitive impressions which influence our relations to persons and situations but in a way that is initially incomprehensible to the conscious mind.

Lozanov says that great actors master the art of the "double plane" intuitively and that nonspecific mental (or psychic) reactivity is a major part of the arts (p. 162; p. 193). In acting, for example, there are unnoticed signals (or stimuli) which affect the unconscious mind and which determine the nature of the aesthetic experience. Such elements as harmony, color, form, music and rhythm influence the emotions as well as the logical mind. The way in which a role is played by a great actor affects the unconscious mind of the spectator. The actor's tone of voice, gestures and facial expressions may give forth more "suggestions" than what he actually says. In like manner, the décor has a "suggestive effect" on the spectator (or observer).

In the area of human relationships, falseness and deceit may lie behind a warm smile while we may be able to find warmth and loyalty hidden beneath apparent roughness or clumsiness (pp. 161-162).

An angry tone may be implied in words expressing anger but also in words whose literal meaning is that of love. Warmth may be given to words expressing cordial feelings but also to words which, according to their logical meaning, manifest hostility. And, by extension, the same analysis may apply to gestures, facial expressions and the like. The nonspecific (or unconscious) factors accompanying speech or human relationships most often remain unnoticed by consciousness. But they nonetheless enter the mind, at the unconscious level, and play a significant role in shaping our impressions, decisions and moods. Nonspecific mental reactivity perceives the hidden meaning—initially through the unconscious (p. 160).

According to Lozanov, good psychotherapists and good teachers master the art of the double plane in the same way as good actors (p. 193). It is through techniques which are unnoticed by the conscious, critical mind that the physician, like the teacher, inspires confidence, whether in a speedy recovery or in rapid learning. The double plane is used to promote authority, to create an atmosphere of infantilization (or relaxation). The teacher and the physician must become artists in their chosen professions. Like the physician, the teacher must pay attention to what he/she says and to the manner in which (s)he says it (p. 163). A change in tone of voice can change the meaning of a given phrase or text.

Suggestions can be communicated in a non-spoken way through facial expressions and ideomotor movements or “body language” but one of the important parts of the Lozanov theory comprises suggestions communicated through speech—especially through tone of voice or “intonation” (p. 194). It is intonation which, according to Lozanov, conveys the real or underlying message and/or which reinforces the content of speech. Spoken instruction, which has a suggestive nature, engages the unconscious mental activity.

Much of the Lozanov theory on the suggestive power of intonation is based on Soviet psychology and psychotherapy—in particular, on the work of K. I. Platonov. According to Platonov, the “word” becomes a real and significant stimulus, in the Pavlovian sense of a conditioned reflex. To consolidate the conditioned reflex, “the physician must pronounce the words authoritatively and firmly, confidently and calmly, repeating the formula of suggestion several times (at certain levels)...” The success of a verbal suggestion is determined “not only by the content of the formula of suggestion itself but also by the expressiveness of speech, i.e., the sound intensity, the intonation of the voice, particular accents corresponding to the meaning of the

uttered words, etc.” (Platonov, 1959, p. 242). The tone of voice in which the “word” is pronounced can provoke physiological and/or emotional reactions. “The personality of the physician... the tone of his voice and his emotional state, which determines his behavior towards the patients, are all complexes of enormously strong and significant stimuli capable of provoking very powerful, particularly emotional, reactions in the patient’s nervous system” (Platonov, 1959, p. 261).

According to the Lozanov thesis, speech affects the recipient through sense content, i.e., in a logical manner and also through rhythm, timbre and nuance, i.e., at an emotional or unconscious level. Words exercise a suggestive effect especially when they are pronounced with a soft and solemn or a commanding tone. A self-confident tone tolerates no objections; a low-voiced, rhythmical, subtle suggestion exerts an influence which may be greater than that of a direct command.

Lozanov says that intonation is one of the elements of “double plane behavior” (p. 194). As in yoga where the correct positioning of the voice is very important, the proper tone of voice in Suggestology/Suggestopedia creates an atmosphere of authority and contributes to the suggestive effect of speech. In the pedagogical process, for example, the intonation of the teacher may attribute a diversity of meanings to the program presented for memorization. Insofar as authority is concerned, the tone of voice used by the teacher should inspire greater confidence and motivation on the part of the students.

Within the context of Suggestopedia, intonation is of particular importance because of its effect on memorization. In *Suggestology and Outlines of Suggestopedy* (p. 195), Lozanov says that in “experiments with special intonation, we got more lasting memorization than was achieved in the control group.” He also says: “We dropped artificial intonation later on in our suggestopedic courses and retained only the artistic intonation in harmony with the music of the concert session. In this way, the intonation became more acceptable to the students” (pp. 195–196). In the Bulgarian original of his thesis, however, there is a section on experiments conducted with three different intonations (or voice levels), which intonations, as it happens, come from yoga. Probably for political reasons, this section was removed from the official English translation of the Lozanov book and only oblique references remain to the three intonations. One of the student questionnaires reproduced in *Suggestology and Outlines of Suggestopedy* (p. 25) says that the “suggestopedic session consists of an active and a passive part.

During the active part the teacher reads the unfamiliar words and phrases three times (with their Bulgarian translation), using a special kind of intonation." Lozanov himself says (p. 268) that, "at the beginning, [the suggestopedic session] was divided into an 'active' part and a 'passive' or 'concert' part. In the active part of the session, the teacher read the new words with special three-stage intonation." Yoga experts consider the three intonations to be extremely important for improved memorization.

According to *Sugestologia*, in a typical experiment, 16 words from the poetry of P. K. Yavorov were recorded on tape at the rate of presentation of one word every five seconds. Two recordings were made by the same speaker. In the first recording, the words were pronounced (or read) in a flat, neutral tone of voice; in the second, a suggestopedic intonation of the type called "vertical intonational swing" was used. (Vertical intonational swing refers to three different voice levels or tones of voice; three phrases or words may be read together, each with a different voice level). Those who participated in the experiment were secondary school children; they heard the playback of one of the two recordings only once. A check for the memorization of the material was made immediately following the playback and a second, delayed check was made after four to five days. It was found that intonation improved memorization, especially when the check was delayed (Lozanov, 1971a, pp. 234 ff).

The same experiment was conducted with three variations: (a) with no authority and no mnemonic direction (the persons under investigation were not told who was conducting the experiment and were not informed beforehand that a check would be made on the memorization of the material); (b) with no authority, but with mnemonic direction (the students were not told which Institute was conducting the experiment but were informed before hearing the program that a check would be made of the material to be memorized); (c) with authority and with mnemonic direction (the students were told which Institute organized the experiment and that a check would be made of the material to be memorized once the program had been played).

The evidence from the appropriate experiments led to the following conclusions: (a) an increase in immediate memorization can be achieved by mnemonic direction, whether backed up by authority or not; (b) mnemonic direction alone is not enough to ensure lasting memorization even in cases where the program to be memorized is presented with "intonation"; the intonational presentation of the program-to-be-memorized does not by itself guarantee better (or more

lasting) memorization even in cases where there is mnemonic direction; (c) better and more lasting memorization in the experiments conducted was achieved solely when varying intonations were combined with an authoritative presentation of the program. Intonational presentation thus plays a positive role when it appears as a part of (or together with) authority; authority has a positive influence on memorization when it finds an acceptable external form (i.e., intonation), satisfying the expectations of the persons under investigation (Lozanov, 1971a, p. 238).

Apart from the positive contribution of intonation to memorization, Lozanov and his colleagues found that the experience of memorization is more pleasant when there are varying intonations. Repetition facilitates memorization but it also leads to boredom; boredom is lessened or eliminated, however, by intonation. Quite apart from other factors (such as a correspondence to the three forms of yoga suggestion), the suggestopedic courses at the Institute of Suggestology (as Lozanov himself says in the official English translation of his thesis [p. 268]), used three different intonations (or voice levels) in the 1960s and early 1970s in order to vary the presentation of new items to be memorized. The three different intonations were used, firstly, in what Lozanov calls "horizontal intonational swing," i.e., each word or phrase was repeated three times, each time with a different intonation; secondly, in what is labelled "vertical intonational swing," i.e., as mentioned above, three phrases were read together, each with a different voice level. The memorization results were apparently very similar for both "horizontal" and "vertical" intonational presentation. The three types of intonation used were: (a) normal, declarative, promising; (b) quiet, soft, ambiguous (this intonation corresponds to the "whispering method" in therapeutical practice where therapeutical suggestions are presented under the threshold of conscious identification); (c) domineering, sure, finalizing (a loud command). The emotional overtones are accompanied by physical changes in sound production. In the third type of intonation, for example, more strongly expressed amplitude changes are in evidence between the separate words in a given phrase and between the sounds in the words (Lozanov, 1971a, pp. 241-242).

According to Lozanov, intonation (or tone of voice) cannot be separated from rhythm or rather, intonation achieves its maximum effect when the program to be memorized is presented in a rhythmical manner, with appropriate pauses between the words or phrases. As in Soviet hypnopedic courses in foreign languages, in the original

suggestopedic courses at the Institute of Suggestology, rhythm was combined with intonation in the presentation of the material (or program) to be memorized.

Whether in its Bulgarian original or in its unofficial or official English translations, the Lozanov thesis does not contain much information on rhythm and furnishes no details on the "correct" rhythmical presentation of materials during the suggestopedic class. Rhythm, however, is considered to be important as a basic biological principle and as a reflection of rhythms in nature (p. 196). Rhythm affects physiological processes, on the one hand, and mental or artistic life, on the other. A continuous, monotonous, rhythmic presentation can engage the nonspecific (or unconscious) mental activity and result in an easy overcoming of anti-suggestive barriers (pp. 173–174).

Lozanov says that the "suggestive effects" in medicine, advertising, teaching and so on are often presented rhythmically. By intuition and experience, psychotherapists know, for example, that the rhythmical repetition of therapeutical suggestions may bring about the hoped-for results more quickly than a single command or a solitary whispered suggestion. (Platonov [1959, p. 47, p. 252, p. 254] found, for example, that verbal suggestions for inducing sleep were most effective when accompanied by rhythmic metronome beats—one beat every one or two seconds. The first signalling stimulus is the metronome beat, the second is the "word").<sup>10</sup> The various forms of rhythm in art (especially music and dance) have a deeply penetrating suggestive effect. Rhythm, in Lozanov's view, has a positive influence on memorization. "The rhythmically correct intonational presentation of a program ensures a high degree of durable memorization" (pp. 196–197). Although Lozanov does not say so directly in his thesis, one has the impression that he would agree with the experimental results of L. L. Vasiliev as reported in *Mental Suggestion*: "the success of experiments in rhythmic perception of mental suggestion sent rhythmically depends on the interrelation of two rhythms: the rhythm of the sender in sending suggestions, and the rhythms of suitable moments of perception in the percipient." The synchronization of the two rhythmic patterns can be determined by electroencephalographic recordings of sender and percipient during the process of mental suggestion (Vasiliev, 1963, pp. 128–130).

While a monotonous rhythmic presentation of new material may impede memorization (for repetition induces boredom), the use of varying intonations together with rhythm gives the presentation a greater variety and hence maintains memorization at an optimal level

(Lozanov, 1971a, p. 243). The use of "vertical intonational swing" (i.e., three phrases read together, each with a different tone of voice) does not involve a repetition of the same stimulus (as is the case in "horizontal intonational swing" where each phrase is repeated three times) and means that the suggestive effect of rhythm is principally related to the presentation intervals of the separate fragments for memorization, not to the repetition of these fragments (p. 197). The importance of the interval of presentation was studied, from the beginning, in research work conducted at the Institute of Suggestology. Experiments were conducted in the memorization of words repeated or presented every second, every five seconds, every ten seconds, and so on. The results obtained showed that the proper timing of the presentation of the program to be memorized has a positive effect on memorization (Lozanov, 1971a, p. 244).

The final principle of Suggestopedia is yet another coined term: "concert pseudopassivity" or "pseudo-passiveness" (p. 60; pp. 197 ff). This term refers to the concept that suggestion, whether emanating from the teacher or the psychotherapist, is best realized when the recipient is in a deeply relaxed (but not necessarily hypnotic or somnolent) condition (Lozanov, 1971a, p. 245). The more profoundly relaxed an individual is, the more suggestible he (or she) becomes and the more open (s)he is to suggestions of various kinds, especially if the general atmosphere is pleasant: suggestions for elimination of fatigue, strain and stress; suggestions for rest, renewal of energy, improvement of motivation and ability to work. In the suggestopedic class, as in Dr. Lozanov's method of integral psychotherapy, the suggestive atmosphere, combined with a state of relaxation in the subjects, restores energy levels and eliminates fatigue. (According to Platonov's experiments, the verbal suggestion of pleasant experiences during suggested sleep reduced arterial pressure and pulse rate [Platonov, 1959, p. 210]). Super-memory is achieved while one is in a state of relaxation; at the Institute of Suggestology, students in the state of "pseudo-passivity" were able to memorize the appropriate programs to the level of hypermnnesia.

The state of relaxation is based on, or derived from Savasana yoga. (Indeed, the very term "pseudo-passivity" comes from yoga and refers to the state achieved during the Savasana, or "corpse" pose). Lozanov originally studied the effects of suggestion on students when they were in a state of muscle relaxation (and accompanying mental passivity). In the official English translation of the Lozanov thesis, a number of references remain regarding the original experiments: "In the concert part of the session, the new lexical material was read quietly, with

pre-classical or classical music (specially selected as suitable and experimentally checked) playing in the background. With this variant the students used to be trained in muscle relaxation" (p. 268). It was found that profound relaxation facilitates memorization. In psychotherapy, Lozanov had already discovered that relaxation based, for example, on the autogenic training of J. H. Schultz gave good results as did the psychotherapeutical method of "somnolent breathing" in which "subliminal signals enter the general suggestive background from the respiratory movements of the physician" (p. 175). During the "concert session," when the language material is rhythmically read, or acted out, over a background of classical music, the course members appear relaxed and calm as if they are attending a concert and, during the "passive" part, do not pay active attention to the program presented for memorization. However, the suggestive set-up of pseudo-passivity, while characteristic of behavioral passiveness of attention, is accompanied by considerable internal activity (p. 60). In the original version of Suggestopedia, deep, rhythmic yoga breathing facilitated student concentration. (Lozanov mentions the "breathing" obliquely in the official English translation of his thesis when he says that "the concert session has proved sufficient for attaining concentrative psychorelaxation even without resorting to exercises in muscle relaxation and rhythmical breathing" [p. 269]). Although this internal activity in a "pseudo-passive" state is unconscious, it is more conducive to hypermnesia than conscious, voluntary attention.

In addition to a comfortable and relaxed posture (i.e., originally the alternate Savasana posture with its accompanying state of muscle relaxation), a state of mental relaxation in a pleasant and calm atmosphere is extremely important for the elimination of fatigue, stress and strain and for the achievement of improved memorization and speed and accuracy in work. In his original thesis, Lozanov claimed that mental relaxation was of greater importance for the successful outcome of the process of teaching than muscle relaxation (Lozanov, 1971a, p. 275). The students must not only be relaxed physically and free from fatigue, they must be freed from doubts and hesitations regarding their ability, as well as daily concerns and neuroses. Mental (or psychological) relaxation, therefore, presupposes liberation from petty worries and everyday concerns.

Positive emotions are a part of concert pseudo-passivity. During the concert or passive session, the students are behaviorally passive and make no conscious, intellectual effort to memorize or understand the program that is being presented to them. However, at the unconscious

level, their emotions are involved in the program which must, of course, be a positive and stimulating one, containing no negative suggestions. As in psychotherapy, the success of the pedagogical process directly depends on the subject's emotional state.<sup>11</sup> Classical music also aids in the creation of a positive emotional response to the program for memorization. In particular, eighteenth century baroque music appeals to the "affections" or "passions" in the sense of the spiritual movement of the mind. In the official English translation of his thesis (as mentioned above), Lozanov says that the "concert session has proved sufficient for attaining concentrative psychorelaxation even without resorting to exercises in muscle relaxation and rhythmical breathing." There occur in the students complicated internal processes—emotions, moods and associations—as the program is presented over a musical background during the concert session. The students' identification with the music and the program motivates them to memorize the appropriate materials.

Although the scientific data presented are not entirely complete, it is clear, from *Sugestologiia* as well as from *Suggestology and Outlines of Suggestopedy*, that experiments were conducted at the Institute of Suggestology to test the students' physical and emotional reactions to the language courses offered. It is evident, also, that much of the research centered on the original "concert session" and on the corresponding state of "pseudo-passivity" in the students (p. 226; pp. 237–239). Brain waves were tested; electroencephalographic recordings showed, for example, that alpha waves increased during the concert session while beta waves decreased. Pulse changes were observed; the pulse rate slowed down during the "concert" and there was a corresponding decrease in blood pressure. (Short periods of strenuous mental work are usually characterized by an increase in beta waves and an increase in pulse rate and blood pressure). More generally, the students showed no visible signs of fatigue, stress and strain—even after four hours of an intensive class (including one "session" hour). Paradoxically, hypermnnesia led to, or was accompanied by a state of calmness and tranquillity. As a result of the suggestopedic classes in general and of the concert sessions in particular, the night sleep of students improved and minor neuroses tended to disappear. Questionnaires distributed to the students revealed great personal satisfaction with the suggestopedic course(s), in addition to improvement in mental and physical health (pp. 26 ff).

Written for an East-European audience, *Sugestologiia*, the Bulgarian original of the Lozanov thesis, gave the distinct impression that,

in spite of its "relaxing" elements, Suggestopedia really worked on the basis of the authority of the teacher and the prestige of the educational institution to which that teacher belonged. Traces of this remain in the official English translation, *Suggestology and Outlines of Suggestopedya*. Almost 30 pages are devoted to a sample Italian lesson which appears quite traditional and emphasis is placed on the role of grammar in the suggestopedic language class (p. 273) while games and sketches are downplayed (pp. 333–334). Just before the conclusion (p. 334), Lozanov emphasizes, once again, that the teacher "should have a great deal of prestige." Correct conduct on the part of staff and students is a must (p. 275).

On the other hand, in a possible attempt to appeal to North American and West European readers, *Suggestology and Outlines of Suggestopedya* has, on more than one occasion, a somewhat different tone from *Suggestologia* and, in addition, a final chapter, "Characteristics of the Desuggestive-Suggestive, Liberating-Stimulating System," in which Lozanov emphasizes the relaxed, liberating, creative side of Suggestopedia, whether in language classes at the Institute or within the context of the Bulgarian school system. Students do almost no homework (p. 277) and, from the accompanying photos, it would appear they learn easily in a pleasant and relaxed (or relaxing) atmosphere.

At the beginning of chapter 6, the final chapter to the official English translation of his thesis, Lozanov says:

The main aim of teaching is not memorization, but the understanding and creative solution of problems. However, the main obstacle encountered in teaching is memorization, automation and the assimilation of the material presented. Teaching methods have so far been in accordance with the accepted "restricted" capacities of the human personality.... In these circumstances, one of the most important tasks of suggestopedya has been to free, to desuggest and to explain to all students that human capacities are much greater than expected, and to provide liberating-stimulating methods to bring these locked-up human resources into play.... [S]uggestopedya stimulates not only the memory, but the whole personality—its interests, perceptions, creativity, moral development, etc. (p. 251).

To stimulate memorization in a pleasant environment, to help the student overcome psychological and sociological blocks to learning, Lozanov includes a section entitled, "Principles and Means of Suggestopedya" (pp. 258 ff). The three new principles are: (a) joy and absence of tension and concentrative psychorelaxation; (b) the unity

of conscious and paraconscious and integral brain activity; (c) the suggestive link on the level of the reserve complex. These principles are realized through the "indivisible unity" of the three groups of suggestopedic means: (a) psychological, (b) didactic and (c) artistic (p. 261).

The principle of "joy and absence of tension" comprises two elements: a removal of the psychological and/or physical stress that blocks (or hinders) learning in the students; a state of relaxed alertness in the pupils which leads to a "joyful freedom in the process of learning" (p. 258). The students must be relieved of stress and strain and given confidence in their abilities to learn easily.

The principle of the unity of the conscious and the paraconscious (or unconscious) means that the "whole" student should be engaged in the learning process: his/her conscious mind and his/her unconscious (or subconscious) mind. "Integral brain activity" refers to the fact that the two hemispheres of the brain (both right and left) should be involved in the educational process (as opposed, for example, to the involvement of merely the left, or rational, logical hemisphere in the traditional classroom). The student's creative side (i.e., the right hemisphere of the brain) should be involved in learning as well as his/her reason, logic and critical sense.

The principle of the "suggestive link on the level of the reserve complex" means that, through positive suggestions for pleasant learning, the student's reserve capacities should be engaged in the learning process. As in group psychotherapy, the student may not really be aware of his/her full potential until the suggestion is given that (s)he can, indeed, learn more than was believed possible. In a pleasant environment, with practice and positive reinforcement, the student realizes that he/she can assimilate the material easily.

As mentioned above, these new suggestopedic principles are realized by a tripartite group of suggestopedic means: psychological, didactic and artistic. Whereas the "principles" apply primarily to the students, the "means" apply mainly to the teachers.

"Psychological means" require that teachers should have the theoretical and practical training necessary to enable them to engage the "whole" personality of the student and to maintain the appropriate suggestive atmosphere in the classroom. "Teachers must be familiar with the numerous variants of unconscious perceptual and thinking processes, so that they are able to utilize them in the educational process" (p. 261). Teachers must also teach students how to learn on their own (but no details of this process are provided in the Lozanov thesis).

The didactic means "call for the generalization of the meanings of the codes and the enlarging of the teaching units" (p. 261) and refer to the structural design and integration of the course elements. Ideally, all subjects in a given school should be taught by the same suggestopedic method. Lessons (and courses) must be carefully planned in advance so that students (or pupils) have the opportunity to obtain a Gestalt approach to learning, to get an overall (or holistic) view of the material (or subject) studied. New material must be introduced gradually and made meaningful. In language courses, emphasis is on the total communication situation. Pronunciation, vocabulary and grammar are secondary (p. 262).

The artistic means of Suggestopedia introduce the arts (music, fine arts, acting, etc.) into the teaching/learning process. As we shall see when we discuss the second variant of Suggestopedia, the various arts become an integral part of the lesson. The artistic means are used not only to create a pleasant atmosphere but also to enhance the suggestive set-up, attitude and motivation, among other things (p. 262). Learning increases as a result of the indirect presentation of educational material (mathematics, foreign language vocabulary, for example) through art forms such as music and painting.

Lozanov insists (p. 265) that the suggestopedic means, like the suggestopedic principles, should be applied, not independently one of the other but as a unity or totality. However, as Lozanov says himself, these principles and means are but briefly described in *Suggestology and Outlines of Suggestopedy* and specific approaches are not elaborated upon.

Whether in its Bulgarian original, unofficial or official English translation, the Lozanov thesis on Suggestology presents the North American and West European researcher with a number of problems. The results obtained in suggestopedic courses are revealed; very often the exact means by which these results were obtained remains obscure. Statistics, as has been pointed out by more than one reviewer, are often faulty or incomplete; the evidence from several experiments tends to be fused (or even confused). Peripheral data (number of students taking a given course; student questionnaires; letters to the Ministry of Education in the Bulgarian original; directives for parents in the official English translation) tend to be elaborated upon; essential information (the rhythm of presentation of new material; teacher training; precise techniques for the conduct of a language class) is often lacking. Extravagant claims are made regarding the acceleration and duration of the process of memorization, with few properly

presented proofs. Most of the initial experiments at the Institute of Suggestology (and those conducted before the Institute was founded in 1965) centered on the memorization of words (as can be seen in chapter 5, "Suggestopediy—An Experimental Method of Suggestology") and, while words can be measured statistically, there is considerably more to learning a foreign language than memorizing vocabulary items. Lozanov himself says (p. 332) that "the information on suggestopediy available is still insufficient."

Faced with a lack of hard, scientific data, on the one hand, and peculiar (i.e., Soviet-inspired) terminology, on the other, the traditional North American or West European researcher is likely to have a negative reaction to the Lozanov thesis and, by extension, to Suggestology and Suggestopedia. Yet the reaction in Eastern Europe, in such countries of the former Soviet bloc as East Germany, Hungary and Russia—especially in such prestigious institutions as the Moscow Foreign Languages Pedagogical Institute—has been positive and Westerners who visited the Institute of Suggestology in Sofia in the early 1970s were very impressed with the classes they observed and with the performance of the students. The second variant of Suggestopedia, which has been widely demonstrated in North America and Western Europe since the late 1970s, has also won high praise from teachers and students. It would appear that the "correct" approach to Suggestology and Suggestopedia is to find the underlying ideas (many of which constitute a most original contribution to education), trace their evolution, interpret them (where necessary), examine which elements can be used in our classrooms and, as has been done by researchers affiliated with the Society of Accelerative Learning and Teaching, reconstruct the statistical evidence in accordance with the more rigorous methods used in Western science.

## NOTES

1. In Soviet-inspired psychotherapy, the actual techniques used are very rarely spelled out in written form and apprenticeship is considered essential to learning them. Quite apart from this tradition of vagueness of presentation, many of the original elements of the suggestopedic language class have been changed or modified over the years, often for political reasons. Westerners who attended the 1971 International Symposium on the Problems of Suggestology held in Sofia and in Varna, Bulgaria were able to view Suggestopedia in its original form.

2. All page references to *Suggestology and outlines of Suggestopedy*, the seminal work by Dr. Lozanov, will henceforth be indicated in brackets at the end of a given quotation within the text, without mention of Lozanov's name and the date of publication, if there is no possible ambiguity as to the reference.
3. "There are many indications to suggest that a light hypnotic sleep makes it easier for a percipient to receive telepathic impressions" (Vasiliev, 1963, p. 127). Tests to determine student suggestibility—raising the arm, inclining the body, clenching the hands, closing the eyes, etc.—are outlined in *Suggestology and outlines of Suggestopedy*, pp. 60 ff; pp. 221 ff.
4. Lozanov says that V. M. Bekhterev, the Soviet founder of Objective Psychology or Reflexology, dwells on the so-called passive perceptions which enter the general mental sphere when the active attention is absorbed by another activity or when the person is in a state of absent-mindedness. In many cases, a given stimulus, initially unnoticed by consciousness, or occurring during a dream at night, is remembered and/or acquires sense only after a given period of time (*Suggestology and outlines of Suggestopedy*, p. 154).
5. This outline of Soviet psychology is taken from Simon, 1957, p. 8.
6. For a discussion of "set" in visual perceptions and auditory intensities, see Natadze, 1969. For a discussion of "linguistic set," see Natadze, 1972.
7. For information on Soviet research in hypnopedias, see Rubin's *Learning and sleep* (1971). Much of the information of this section is taken from *Learning and sleep*.
8. The oscillation frequencies of brain waves are measured in cycles per second (Hz) while the amplitudes are expressed in micro-volts ( $\mu\text{V}$ ). In this context we can speak about fast activity and slow activity rhythms with low, medium and high voltage (beta rhythm, above 13 Hz; alpha rhythm, 8–13 Hz; theta rhythm, 4–7 Hz; delta rhythm, 0.5–3 Hz; low voltage, 10–30  $\mu\text{V}$ ; medium voltage, 30–75  $\mu\text{V}$ ; high voltage, 75–200  $\mu\text{V}$ ).
9. See Schultz & Luthe's *Autogenic methods* (1969). In addition to the relationships between Dr. Lozanov's psychotherapeutical method and autogenic training, there are parallels between the session in psychotherapy and the session in the original suggestopedic language class.
10. For a combination of the two Pavlovian signalling systems, see the "concert" session in the original suggestopedic language class in which the stimulus of the music beat is combined with that of the "word".
11. "The success of psychotherapy directly depends on the patient's emotional state and . . . the physician's behavior and . . . the surroundings must evoke in the patient a corresponding *positive* reaction" (Platonov, 1959, p. 258).



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## CHAPTER 2

# The Original Suggestopedic Language Class

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The method elaborated by Georgi Lozanov and his colleagues (originally at the Institute of Suggestology in Sofia) is called Suggestopedia and implies the application of Suggestology to pedagogy or the educational process. Suggestopedia has been used in a number of Bulgarian schools for the teaching of a variety of subjects, especially those sequential disciplines such as mathematics which depend, at least initially, on a foundation of memorized facts. However, the principal area of concern of the Institute of Suggestology (and of Lozanov's work since his departure from the Institute) has been the teaching of Western foreign languages, although experimental courses in Russian have also been taught by the Institute's staff members. From 1965/66 to 1970/71 (the period of the development of the first version of Suggestopedia for language instruction), more than 1800 persons took instruction in Western languages at the Institute of Suggestology. Each language course lasted from 25 to 30 days; three courses of one month each were outlined and/or developed for French, English, German and Italian. A language class lasted three to four hours a day, with two breaks of 15 minutes. Classes met six days per week, including Saturday, at one of the following times: 8:30 a.m. to 12 noon; 1:30 to 5:00 p.m.; 5:15 to 8:45 p.m. For the learning of the basic elements of a foreign language, Lozanov and his colleagues believed (and still believe) that intensive sessions produce better results than, say, several 50-minute periods spread out over the week (or a course spread out over the school year).

Although enrolment in a given suggestopedic course was (and is) voluntary, once students have signed up, they are expected to attend every class-session. No smoking was ever permitted in the Institute itself, students were supposed to come to class "in good shape" and an atmosphere of discipline and concentration was maintained in the classroom in addition to one of relaxation. Emphasis is placed in a suggestopedic language course not only on a pleasant atmosphere but also on the learning of much material. During the initial courses in French and English which were developed at the Institute of Suggestology in the late 1960s and early 1970s, students were expected to memorize and use in class about 2000 word-groups and corresponding grammar. During experiments to test how many words students could learn in one class-period, some students, apparently, learned as many as 1800 words in *one* day; this was generally not the case, however. Extravagant rumors to the contrary, the norm was about 80 to 100 words per day (or per class-session). Nonetheless, the Bulgarian students enrolled in suggestopedic language courses at the Institute of Suggestology were highly motivated to learn foreign languages not only because of the salary supplement involved for future professionals but because of the greater access foreign language knowledge provided, at the time, to various non-Soviet sources of information.

The standard class size at the Institute of Suggestology in the days of the initial experiments was 12 students: six males and six females. Quite apart from any symbolism one might wish to attach to these 12 "disciples," 12 is an "ideal" number in that it is divisible by two, three, four and six for such classroom activities as plays, games and conversations. A better classroom current was created by the alternation in the seating arrangements of six men and six women in a circle (or semi-circle) facing the teacher. Each of the four language classrooms in the Institute of Suggestology had a bright and cheery appearance (the importance of the environment and of its influence on teacher and students is emphasized in Suggestopedia as in Soviet-oriented psychology); lighting was soft and unobtrusive. In each classroom there were 12 specially constructed chairs (or chaises longues) arranged in an open circle for the students; the instructor's chair stood at the head of the class. These "armchairs" could be used as writing desks and also, in a reclining position and with the "desk" flipped down, for relaxation. Two loudspeakers for music broadcasts were located on the wall at the front of the room; a near-by television set was occasionally used for the presentation of language materials. Although the classrooms were small by North American standards (four by five meters), a stage area



**Figure 2.1.** The Research Institute of Suggestology, 9 Budapest Street, Sofia (in 1971).



**Figure 2.2.** A small language classroom (with special chairs) in the Institute of Suggestology.



**Figure 2.3.** Members of the Institute of Suggestology (June 1971). Dr. Lozanov is in the front row, third from right. Aleko Novakov is in the second row, second from left. Krassimira Pashmakova is in the front row, far right.



**Figure 2.4.** The University of Sofia (founded in 1888 the buildings date from 1934).

was set aside for the performance of simple plays based on the lesson dialogues.

In the basic, or initial course in French or English, there were ten lessons, comprising ten lengthy dialogues. Each dialogue contained about 200 new words and expressions. According to Lozanov and his colleagues, the more words given, the better the students' memorization of vocabulary. Words were memorized, not in isolation, but in their "real-life" context, i.e., in short sentences or phrases that were part of a given dialogue. Songs, jokes, puzzles and anecdotes were included in the various dialogues. Singing, for example, as in the Tomatis Approach, was considered to be especially helpful in the learning of a foreign language and many foreign songs were sung in class as an aid to vocabulary-learning, intonation, pronunciation, the overcoming of psychological inhibitions. At the conclusion of each dialogue, grammatical explanations were provided. Fixed exercises were not included in the manuals, as the exercises used depended on the level of the class. Gymnastic exercises took place, when necessary, either in the classroom itself or in the Institute courtyard (pleasantly filled with roses in the spring). As in Total Physical Response where

the synchronization of language and body movement leads to improved language retention, gymnastics was used to teach such things as numbers, for example, in the original suggestopedic language class.

As set up at the Institute of Suggestology by Aleko Novakov and his colleagues (under Dr. Lozanov's supervision) in the late 1960s and early 1970s, the original suggestopedic language class was based on, among other things, yoga, baroque music and the Mauger direct method. In what was termed the "suggestopedic cycle," three forms of language learning—activity, conscious analysis and unconscious assimilation<sup>1</sup>—were incorporated into the original language class:

1. Previously learned material was reviewed (following the general outline of the Mauger or direct method), mainly through conversations between teacher and student, student and student, singing, physical activities, games, sketches and plays.
2. New material, in the form of realistic dialogues and situations, was presented in a somewhat traditional way, with the necessary grammar and translation. Apart from grammar and translation, the lesson was conducted entirely in the foreign language. Whenever possible, the meaning of new foreign words was suggested through gesture and intonation.
3. During a special one-hour session, the new material was "reinforced" or repeated twice. The lesson dialogue was initially presented in a precise rhythm but with varying intonations and a coordination of sound and printed word or image. During the second presentation, the lesson dialogue was acted out by the instructor (but again according to the "correct" rhythm) over a background of calm, pleasant, slow-moving baroque music. Throughout the second part of the "session," in particular, the students leaned back in their chairs and breathed deeply and rhythmically from the abdomen. The relaxation techniques were adapted from Savasana yoga and contributed to the "alpha state" of rest, so necessary after a lengthy language class.<sup>2</sup>

## ORAL REVIEW

In the review of the previous day's material, conversations involved the actual situation presented in the appropriate lesson-dialogue or took the form of short sketches or plays in which the language material was used in new situations. Two, three, four or six students took part in these sketches; occasionally a longer "play" was created in which all

the students had a given role to act out. As in a seminar, the circular arrangement of the chairs provided for a “free” and spontaneous exchange between members of the class or between teacher and student(s), even when the entire class was seated.<sup>3</sup> In this oral review, the audio-visual or direct method was generally used.<sup>4</sup> However, members of the Institute were opposed to language laboratories, rigid structural exercises and mechanistic repetition of language patterns. As in current communicative-approach methods, real communication situations were favored, in contrast to artificial, dehumanizing drills and exercises. According to the Institute of Suggestology’s original program planners, Aleko Novakov and Krassimira Pashmakova, language learning should be a creative process and the emotions involved should take precedence over structural exercises. Indeed, the word “exercise” itself was considered to have negative overtones which derive from the traditional school curriculum. This lack of fixed exercises constitutes a possible defect in the Institute’s original language manuals as predetermined oral and written exercises provide for controlled checks on the correctness of language usage. However, teachers in the Institute’s classrooms did correct language errors, although not according to a rigid pattern, and many language activities were used in class.

In the original version of the suggestopedic language class elaborated by Aleko Novakov, language activities included: the improvisation of a different ending to a given dialogue; the telling of a story based on the lesson, using the appropriate emotional tone and a given verb tense (the compound past in French, for example); the recitation of poems and proverbs. In the “oral review,” emphasis was placed on change and variety: from the description of one’s apartment to singing to the acting out of a given scene. The students were given certain problems to solve and they engaged in competitions. In the so-called “micro-studies,” attention was paid to precise questions and answers: “What should one do in a hotel room if the bathroom taps aren’t working?” (One might add that this was a common tourist problem in Bulgaria in the 1960s and 1970s!) Vocabulary and grammar counted in this section. With the so-called “macro-studies,” emphasis was placed more on information and content. Sample question: describe to your friend (or classmate) the Boyana church (one of Bulgaria’s most important medieval churches, containing beautiful thirteenth century frescoes). For the “macro-studies,” students could be led into the street (or out into the countryside) for spontaneous language practice; they were then required to order a meal, rent a hotel room or describe a

Bulgarian historical monument in the appropriate foreign language. Students also composed small plays based on the lesson dialogues. At the conclusion of the course, a one-hour play was written by the students and the roles were distributed by the teacher. In this final play, gestures, facial expressions and the like were evaluated, together with the quality of the language used.

All these language activities had a directional framework but also provided for personal expression in the foreign language. The student was encouraged by a positive, yet authoritarian teacher to react spontaneously to a given situation in the foreign language. The motivation to communicate was aroused. As was shown, for example, by Robert Rosenthal in *Pygmalion in the Classroom*, the teacher's personality often has a very decisive influence on the students' performance. Dr. Lozanov insisted from the beginning that the teacher must play the proper role in class and stressed the importance of the teacher's voice, gestures and facial expressions when he or she faces the students. In the late 1960s and early 1970s, the Institute's teachers were individually trained for a period of three to six months in psychology, singing and acting, among other disciplines. While this lengthy, intensive training is no longer carried out, suggestopedic teachers must know how to maintain their authority, on the one hand, and be able to develop their intuitive understanding of the students, on the other. In the "ideal" teacher-student relationship, which is characterized by distance as well as closeness, the teacher must be able to develop each student's ability in the language in addition to the conversational ability of the group as a whole. Group techniques in Suggestopedia have been taken from Soviet-oriented psychotherapy which aims to restore the group and consolidate its relationship to the environment.<sup>5</sup> The group must be "good" (i.e., highly motivated) as well as relatively homogeneous so that each student can take from the group (including the teacher) those psychological and linguistic elements that he or she needs.

According to Lozanov's initial experiments, student expectation is highest when the teacher's authority is maintained and when the educational institution where the student is enrolled enjoys great prestige. Authority also affects memorization; Lozanov has found that one remembers best what comes from an "authoritative source." In the correction of student mistakes in the suggestopedic foreign language class, authority is used but negativity is avoided; mistakes are corrected, although not in a "severe" or intensely "critical" way. The students are expected to know the appropriate materials but they must also be inspired with confidence in their own ability and in the powers

of the human mind. In the positive atmosphere of the original suggestopedic language class, even the word "difficult" was avoided as one language text used in Bulgarian schools began with the sentence: "English is a difficult language"—thus immediately creating a psychological block in the students' minds. Someone who is convinced, from the very beginning, that English will be too difficult to learn may stop trying to master the language. So that the students can regain the child's ability to memorize and imitate, games, songs and plays are used to realize what Lozanov calls the opposite of authority: the process of "infantilization," i.e., child-like (but not childish) spontaneity and enthusiasm.

At the start of the suggestopedic language course, to help overcome inhibitions, the class members are introduced to each other and each class member is given a new (foreign) name and biography (or role to play). During the class period, a student may make mistakes in the foreign language, but these mistakes will be committed, not in his/her own, but in someone else's name. This technique is especially valuable, according to Lozanov and his colleagues, when the student in question occupies an important position in the workaday world and is suddenly obliged to learn a foreign language at the beginner's level. Such a student will have many inhibitions since he (or she) is used to exercising his (or her) authority and showing a certain professional competence in the outside world and now finds himself (or herself) in the opposite situation in the classroom. Through role-playing the students come out of themselves and forget their personal worries and neuroses. They live imaginatively with their new and foreign identities throughout the suggestopedic language course.

In addition to having a psychological purpose, role-playing—or the assuming of a new name and biography—had a phonetical intent in the original suggestopedic language manuals elaborated under the direction of Aleko Novakov. (In contrast to the Soviet suggestopedic language manuals, Novakov's were not officially published). Each "identity" assigned contained repetitions of one or more phonemes that Bulgarians find difficult to pronounce. In the introductory English course, for example, one found "roles" like the following: Peter Reeves, an engineer from Crief; Geoffrey Jackson, a general manager from Gildredge; Arthur Parker, an artist from Bath. In the case of the sound *on* in French, a student was given the name Léon Dupont, told he lived at 11 (*onze*), rue Napoléon, that he worked as a *maçon* (mason), by building *des maisons* (houses). In English, the *th* sound is especially hard for Bulgarians to pronounce because the sound is

nonexistent in the Bulgarian language; nasal vowels in French create problems as Bulgarian is a consonantal language. In the retelling of someone else's story or biography, the students practiced phonetics, but in a "human" setting, far removed from the mechanical (or mechanistic) one of the old-fashioned language laboratory. A student recited his/her own "story" or "biography" in class, this story was then repeated by another student, and so on.

## **TRADITIONAL OR CONVENTIONAL ELEMENTS**

Although as much as possible of the foreign language class was conducted in the foreign language, in the original suggestopedic language class, new material was generally presented in a somewhat traditional way, in the manner of the grammar-translation method. This new material consisted largely of dialogues and situations based on "real life," i.e., dialogues and situations with which the Bulgarian students would be familiar. (Indeed, throughout the ten dialogues of the first course, they played the roles of foreign tourists, but who were visiting Bulgaria). The dialogues consisted of short, simple sentences and described general or universal situations. In the more advanced lessons in the manuals, narrative materials were included in which the vocabulary and grammar were based on the appropriate dialogues but in which the style was written, rather than oral. These narrations were used for reading passages and, in effect, reading as well as translation was carried out in the second part of the class period. Dialogues are, however, considered closer to real, or everyday life because of the oral communication process involved. In addition, according to the Institute's original staff members, the word "dialogue" has few negative overtones, as opposed to the word "lesson." The material of the suggestopedic language programs was (and is) intended to be adapted to a given environment, that of the students and was (is) intended to illustrate natural uses of language.

In the ten dialogues of the original first course in suggestopedic language instruction (and in the dialogues of the other, more advanced courses as well), emphasis was placed on vocabulary and content. New vocabulary items were underlined in the manuals and phonetic transcriptions were given for each new word. Emphasis in the dialogues was placed on group activities (hence the importance of verbs; all basic verb tenses were introduced to the students as soon as possible). In the dialogues as a whole and within each individual dialogue, attention

was paid to a certain continuity of plot or anecdote. According to the Institute's staff, just as vocabulary items are more easily memorized in the context of a given dialogue (or "real-life" situation), so, too, events or activities are better remembered than static tableaux. In addition, during the session, a series of events is easier to act out and communicate orally.

The instructors at the Institute of Suggestology believed (along with humanistic psychologists and language methodologists in North America) that students should learn a foreign language by describing, at least initially, what they were able to observe around them.<sup>6</sup> The ten dialogues for the first course in English had the following pattern:

1. The students (Bulgarians playing English roles) were introduced to each other and each biography was outlined (name, profession, address, and so on).
2. The "English" students were invited into a Bulgarian home (or apartment) and described how they got there (methods of transportation used, for example) and what they saw on arrival: rooms, furniture, colors, objects of interest.
3. The "English" students visited the Institute of Suggestology and were taken on a tour of the Institute: classrooms, laboratories, and so on. They described the activities of the Institute's language students (in effect, their own activities).
4. In the fourth dialogue, the students attended a family party and described the people to whom they were introduced (aunts, uncles, for example) as well as the food they ate and the activities (such as dancing) in which they participated.
5. The fifth dialogue was devoted to the daily round of activities common to the English, the Bulgarians and other national groups: getting up in the morning; having breakfast, lunch and dinner; going to bed. Such frequent weekly events as shopping and going to the hairdresser's were described; personal holidays (a birthday, for example) were a subject of conversation as well as such national holidays as New Year's Day. Students learned the seasons and months of the year, the days of the week; they discussed travelling in general and travelling inside Bulgaria in particular.
6. While visiting Bulgaria, the "English" tourists changed money, took taxis, rented hotel rooms and described the activities of the hotel staff; they also received an outline of Bulgarian culture while viewing historical monuments.

7. In this lesson, a more extensive tour was made of Sofia, Bulgaria's capital, with visits to cultural monuments, museums and churches. Special attention was paid to the Alexander Nevsky cathedral, an imposing edifice in nineteenth century, neo-byzantine style which was erected to commemorate the Russian soldiers who fell in the 1877-78 war that liberated Bulgaria from the Turks; this church contains a remarkable icon museum. Such public buildings as hospitals and television towers were also part of the city tour.
8. The eighth dialogue was devoted to a meal in a restaurant and to the various items one might find on a menu. Bulgarian cuisine was contrasted with English cooking and eating habits in Bulgaria were distinguished from those in England—the English tea, for example.
9. The ninth dialogue was concerned with cultural life, with particular emphasis, as one might expect, on cultural events in Bulgaria and in England. The students attended a theatrical performance and described what they saw on the stage and during the various intermissions. Interest centered on Shakespeare, always a popular figure in the then Soviet-bloc countries. (Both in the lesson-dialogues as in the classroom activities, the original suggestopedic method stressed the importance of the arts, especially the dramatic arts). The students talked about plays, films and literary works—both Bulgarian and English—as well as concerts and operas.
10. During the tenth lesson, the “English” visitors went on an excursion into the Bulgarian countryside. They described vacation-time activities (fishing, mountain-climbing and so on) and compared Bulgarian pastimes with English ones.

As in currently used communicative methods such as the Natural Approach, the material presented in the original suggestopedic dialogues was emotionally relevant and interesting to the students so that they would be encouraged to remember it and would be motivated to use it in conversational exchange. Materials were continually being tested for relevance in the classroom and those passages or texts which did not “go over” well were dropped. The material presented in class also had to be of practical value as the students taking language courses at the Institute usually planned to use their language skills in their professional work or intended to become guides and interpreters. In addition, the material presented also had to be “pleasant,” which means that disagreeable situations, quarrels and violent conflicts were avoided, in addition to excessively negative comments. According to Lozanov, one remembers best what is emotionally positive.

In the first course of the original version of Suggestopedia, Bulgarian history and culture were outlined in the foreign language while the student played the role of an English/French/German/Italian visitor to Bulgaria; the second and third courses dealt with the appropriate foreign country (or countries) and tapes and slides were used (or were being prepared) for volumes II and III of each language series. In this way, Bulgarian students moved from the familiar to the foreign, or exotic. Second and third courses for the original Novakov version of Suggestopedia were never fully developed for some of the foreign languages taught at the Institute, however. The basic or first course was the principal object of attention in the late 1960s and early 1970s as it was (and is) much easier to measure results with actual beginners.

In the late 1960s, under the direction of Aleko Novakov, special language manuals were prepared by members of the Institute of Suggestology "for Bulgarians," as Bulgarian students need to use, on many an occasion, different words from those contained in such standard lists of basic vocabulary as *le français fondamental*. Frequency lists were established for each course or language taught but frequency had a psychological, as well as a statistical meaning for the Institute staff. In addition to being of frequent occurrence, words chosen had to have appropriate emotional overtones. Borrowings were made from a number of Western and East European sources (Mauger method, Yugoslav and Polish manuals, Soviet texts) but Bulgarian local color and vocabulary items for Bulgarians were injected into the course manuals. The students learned the foreign language but in a familiar context.

In the introductory course à la Novakov, listening comprehension and speaking were emphasized more than reading, writing and translation. Before the beginning students saw the textbook, they spent their first five days in a purely oral course. After this "direct" entry into the foreign language, as in current communicative-based approaches, it was found that class-members read and spoke more easily. Individually and in chorus, students began reading the lesson-dialogues after the book had been given to them with "great ceremony" on the sixth day. (The ceremonial presentation, with flowers and cards bearing the students' names, emphasized the importance of the textbook). After completion of the five-day oral introduction, the teacher gave the necessary grammar and translation in the presentation of the new lesson. Translation was especially used for those foreign words and expressions which have a completely different form or sound from their Bulgarian equivalents and whose meaning would be difficult to

guess in a given context. Although grammatical explanations were included at the end of each lesson-dialogue, these were mainly used for reference by the students; wherever possible, within the class-session itself, grammar was presented indirectly—through the language material. (In the U.S.S.R., by contrast, the original, or Novakov version of Suggestopedia was combined with more grammar; in the second, or Gateva version of Bulgarian Suggestopedia, more importance is attached to grammar [Lozanov, 1978, p. 273]). Apart from grammar and translation, the lesson was conducted entirely in the foreign language, following the precepts of the direct method. Written work, which took the form of letters, diaries, short essays based on the language dialogues, was done largely at home, except for various tests at the beginning and the end of the course. (The change from the Cyrillic to the Latin alphabet was often bypassed as many students had already studied one Western language in school). From time to time, tests were given in class while the month-long course was in progress.

The original introductory suggestopedic course contained a preliminary (or “opening”) period of about four days during which time the students were tested in a number of areas: general intellectual level, imagination and suggestibility, general linguistic level, knowledge of the foreign language to be studied. As a result of these tests and an interview with the teachers at the Institute, the students were divided into a number of groups—preferably homogeneous ones. At the beginning and at the end of the course, the students were given the following tests (so that their progress in the foreign language could be measured, they took the same tests twice):

1. One hundred words which have no associations with the Bulgarian language were to be identified or translated; these words were to form part of the introductory course.
2. An oral dictation in the foreign language was to be translated by the student into Bulgarian. The teacher dictated the passage, sentence by sentence, after first reading it in its entirety, and the students wrote down their Bulgarian translation. Insofar as this was possible, all basic verb tenses were included in this dictation.
3. Written translation was performed of an unknown text from the foreign language into Bulgarian. The text contained at least 100 vocabulary items. The students had the text in front of them for “visual support” while translating it.
4. Five to ten questions were to be answered, in written form, in the foreign language. These questions comprised all basic verb tenses.

Questions asked were of two kinds: elementary ones which required a simple, factual response; more complicated ones which demanded a reply of several sentences from the student.

5. Five oral questions were asked, questions to which a student had to reply while facing the other students in the group.

In these tests, two points per sentence were awarded for a correct reply; one point if minor mistakes were made; one-half point if the student appeared to understand the question but could not reply correctly; zero if there was no reply and no understanding of the question or text. Other tests used before, during or after the course included: the description of a picture in the foreign language and/or in Bulgarian; the use of given words in sentences (written and oral); translation exercises (written and oral) based on the language dialogues; oral translation into Bulgarian of a dictation in the foreign language; ten questions in written form based on grammatical points. One of the final "tests" was, of course, the hour-long play in which all the students acted out a given role and demonstrated their command of the foreign language.

The energetic, dedicated, intuitive language teacher would have found himself (or herself) on fairly familiar ground during the first two parts (oral review, presentation of new material) of the original suggestopedic language class. A good teacher—one who knows his (or her) field and who can communicate what (s)he knows in a lively and interesting manner—is bound to enjoy success in the classroom, especially if the students are disciplined and eager to learn. An intensive language course conducted with an excellent teacher and a small group of highly motivated students is bound to produce good results. Dialogues, singing, games and play acting have been circulating in language-classroom circles for a long time, although the Institute of Suggestology would appear to have a forerunner in the attempt to organize these diverse elements into a coherent, scientific system and to combine medical and psychological research with language teaching. The teacher (or student) accustomed to the glossy pages, captivating illustrations and slick presentation of lesson materials in North American textbooks would probably have been disappointed on seeing the manuals originally used at the Institute of Suggestology: mimeographed sheets bound together without any special visual appeal. (This is in marked contrast to the attractively presented manuals of the second, or Gateva variant of Suggestopedia). Whereas the Institute had scientific laboratories filled with expensive

equipment for medical and psychological research and for the monitoring of the students' health while they were taking a given course, visual materials in the form of slides, films and televised presentations were sparingly used in the suggestopedic classroom in the late 1960s and early 1970s. (Once again, this is in marked contrast to the many visual aids used in the second, or Gateva variant of Suggestopedia). Considerable use has always been made, however, of music (recorded and live) in the suggestopedic language class.

### THE SESSION: YOGA RELAXATION AND CONCENTRATION

While such elements of the original suggestopedic method as role-playing and group psychotherapy would be (and have been) of interest to the North American language teacher, the truly original part of the first version of Suggestopedia (and the part that generated all the excitement as a result of the publicity provided by the Ostrander-Schroeder *Psychic Discoveries behind the Iron Curtain* in 1970, as well as successive books by these authors such as *Superlearning* [1980]) was contained in the special session. One of the consequences of intensive courses—no matter how good the teacher and how intelligent the students—is fatigue and tension. (This is especially true if the audio-lingual method is used exclusively because of its emphasis on rapid-fire student response). To relieve the tired feeling at the end of the language class and to aid memorization in the classroom itself of a large number of vocabulary items (at least 80 to 100 words per day) and corresponding grammar, Aleko Novakov (under the inspiration of Lozanov) created a one-hour "session" which was largely based on two forms of yoga concentration: outer and inner. As can still be seen in comments in *Suggestology and Outlines of Suggestopedy* (p. 25, p. 268), the session was originally divided into two distinct parts: "active" and "passive" (or "concert"), with active or outward concentration on the text preceding the rest and relaxation of passive (or inward) concentration or meditation on the text. (This two-part session is used in the Sophrology memory-training system and, indeed, in various systems adapted from yoga such as the Tomatis Approach).

Teachers, who had to be experts in their field, were individually trained at the Institute of Suggestology in the late 1960s and early 1970s (as was mentioned above) in the theory and practice of the suggestopedic method, in psychology or psychotherapy, singing and acting. East European teachers from outside Bulgaria took a course in

a language other than the one they would eventually teach in order to get the "feel" of being a suggestopedic student; they also took theoretical courses from Dr. Lozanov and did practice teaching under the close supervision of the program planner in the appropriate foreign language. Nowhere was the teacher training more in evidence than in the reading of the language dialogues during the two parts of the session. Although the students were specially trained to assimilate the language materials during the special session, it was really at this point of the language class, more than at any other, that the whole burden fell on the teacher. The teacher had to be able to visualize the material he or she was reading and to project it into the minds of the students who, like the teacher, were in the "alpha" state of relaxed alertness. After spending some two to three hours in animated classroom activity, the teacher had to read the language material for about 40 minutes while maintaining a precise rhythm, on the one hand, and an inspiring tone of voice, on the other. (The Institute of Suggestology believed that there should be one, and only one teacher per class. Hence the teacher had to be energetic and dedicated enough to maintain the proper atmosphere during the entire three to four hours of the class-period). The teacher had to know how to vary his or her intonation (or tone of voice) during the reading of the dialogues during the first part of the session; during the second or so-called "passive" part, he or she had to be able to harmonize the emotional content of the passage in question with the tone of the musical excerpts used as background. No wonder that a good deal of the "suggestopedic" training at the Institute of Suggestology consisted of practice in the session. In the late 1960s and early 1970s, the teachers were given exercises to develop their imagination and intuition; articulation and intonation were carefully worked on through listening to "model" recordings of the best teachers and through performance in class. During the period of practice teaching, the trainee's work in class was closely supervised and carefully recorded; after class, the trainee and his/her "professor" listened to the recordings together and discussed how these could be improved.

If the teachers were specially trained to project the language information during the session, the students at the Institute of Suggestology were specially trained to receive it. According to the precepts of yoga, one cannot obtain concentration if the body is in a tiring and uncomfortable position or if the respiration is disorganized and un-rhythmical (Eliade, 1969, p. 48). Since body and mind are closely connected, proper physical posture and correct breathing are essential

to the fixing of attention (Chauchard, 1974, p. 159, p. 168). A state of physical relaxation realizes the development of intuition or the alerting of the unconscious mind to the receiving of information that normal perception cannot pick up (Ostrander and Schroeder, 1974, p. 166). In Dr. Donald Schuster's Suggestive-Accelerative Learning Techniques (or SALT) Method, physical relaxation exercises precede mind-calming and early pleasant learning recall exercises.

The term in yoga for easy and comfortable posture is *āsana*. In the original suggestopedic language class, the comfortable, stable position adapted by the students during the session was the alternate Savasana (or "corpse") pose which reduces fatigue and tension to a minimum. While the students were shown reclining in their chairs in films produced at the Institute during the 1960s, by the 1970s, the students were sitting straight up, with their feet planted on the floor. The relaxation procedures remained the same, however, until the early or mid-1970s. Those Westerners who attended the 1971 Symposium on Suggestology witnessed the deep, rhythmic breathing and relaxed state of the students—especially during the "passive" or "concert" session.

While no overt muscle relaxation was ever performed in a language classroom at the Institute of Suggestology, the visitor was told (and able to observe) that the muscles of the students were relaxed. During a period immediately preceding the first official day of language classes (this period may have coincided with the pre-course testing days), students were probably trained in relaxation in general and, more specifically, in how to relax, mentally as well as physically, the vital areas of the body (according to yoga, these are sixteen in number). (Some references to muscle relaxation and rhythmical breathing remain in the official English translation of the Lozanov thesis, *Suggestology and Outlines of Suggestopedy* [pp. 25–26, pp. 268–269]). Students in Hungarian suggestopedic classes were trained in relaxation, one at a time, before the course began. In the former Soviet Union, no mention, apparently, was ever made of yoga but deep, rhythmic breathing was used during the session and progressive relaxation was performed before it. Just before the special session began, class-members had to be able, automatically, to relax the body as a totality.

While the teacher read the dialogue during the special session, the students not only relaxed in their (reclining) chairs but also were encouraged to breathe deeply and rhythmically as a group. (According to the precepts of yoga, proper breathing techniques enhance concentration. While coordination of breathing with physical activity is readily recognized in sports training, few language instructors, except

those trained in yoga, recognize the importance of harmonizing breathing with mental activity). One must assume, because of comments by Bulgarian and Russian teachers in 1971 regarding the "correct" rhythm and the "scientific" nature of the method, that respiration was disciplined during the special session. In 1977, during a Conference of the Society for Accelerative Learning and Teaching held at Iowa State University, Lozanov finally admitted that, originally, there was a coordination of breathing with the presentation of the language dialogue. Since, according to recordings made at the Institute of Suggestology in 1971, the language material was presented, both with and without music, according to a rhythm of 2/4/2 and deep, rhythmic breathing was most definitely observed in the classroom, one must assume that the students were trained in advance to breathe in a rhythm of two seconds' inhalation, four seconds' breath retention and two seconds' exhalation. This is the rhythm that would accord with the teacher's reading of the language material, on the one hand and, during the "concert" part of the session, both with the reading of the language material and with the slow-moving beat of the baroque music in the background. Although mental and physical stress was alleviated during a given relaxation session, the students' powers of concentration were considerably increased and they were able to "absorb" large amounts of language material in the classroom without having to do conscious memorization at home.

Scientific experiments conducted by the Institute's staff in the late 1960s showed that the EEG records of students manifested a distinct increase in "alpha activity" (and a decrease in beta activity) as a result of the relaxation and rest of the special session—especially the "concert" part (Lozanov, 1978, pp. 236–237). This "alpha state" is similar, but not necessarily equal to the prominent alpha activity registered by yogis during meditation. The alpha rhythm is generally linked with a relaxed state, on the one hand, and heightened concentration, on the other (Anand, Chhina and Singh, 1972).

## **THE ACTIVE PART OF THE SESSION**

The "active" part of the original suggestopedic session was based on outward concentration in yoga, i.e., concentration or fixation, with eyes open, on an external object, picture, image or symbol. Throughout the original active session, the students watched the language program simultaneously with its special reading by the instructor.

On the printed page, the material-for-memorization was visually arranged in threes and each element of this threesome was presented orally with a different intonation (Lozanov, 1971a, pp. 234 ff; Lozanov, 1978, pp. 195–196; p. 268). In the “active” part of the session, audio and visual elements were thus coordinated or combined; the students watched the language dialogue and listened to it being read by the teacher. (As we shall see, Dr. Tomatis emphasizes that a very effective technique for learning foreign languages is the combination of audio and visual elements). In addition, outward concentration on an external object (i.e., the printed text) was combined with an inner repetition of the words and/or phrases in the foreign language. Inner speech is considered to be of considerable importance in Soviet (or Russian) psycholinguistics; following the example of A. N. Sokolov, Lozanov and his staff found that “inner repetition” is especially helpful in the memorization of difficult foreign words (e.g., those which bear no resemblance to their Bulgarian equivalents) (Sokolov, 1972; Lozanov, 1978, pp. 64–65). In the original suggestopedic language class, the students repeated (at least in theory—as coordination of breath with thought or image is not easy to achieve)<sup>7</sup> the foreign words and phrases to themselves during that period of rhythmic breathing when their breath was suspended or held—thus following the example, but not necessarily the purpose, of the ancient and modern yogis.

In the reading of the three phrases in the foreign language, a fixed pattern was followed. The first word-group, short sentence or sentence-fragment was read in a normal, declarative tone of voice; the second phrase was read in a soft whisper (no doubt imitating Lozanov’s work in subliminal suggestion and psychotherapy); the third phrase, in great contrast to the second, was read in a loud voice and with a commanding tone. An example from the French manual follows:

Je vous présente ma mère et mon père	normal tone of voice
Ma grand-mère et mon grand-père	whisper
Ma soeur cadette et mon frère Paul	loud tone of voice

The tone of voice used for each phrase bore no necessary connection to the meaning of the word-group as such. The loudness or softness of the voice and the “quality” of the suggestion (straightforward, subtle, authoritative) were used for variety and contrast—and probably also to prevent the relaxed students from falling asleep in class. (When a student *did* doze off during the session, he or she was gently nudged awake by the teacher). More importantly—at least according to

experts in yoga—the three intonations of the original suggestopedic language class correspond to three forms of suggestion in yoga and are considered very important for improved memorization.

When the new material was presented in the session (especially during the oral-introduction part of the course), the Bulgarian translation of each phrase or word-group was given first. (Once the students were in possession of the textbook, this Bulgarian translation could be omitted during the teacher's reading of the lesson dialogue). The Bulgarian translation was intended for quick student reference and was considered necessary for older students who initially experience difficulties learning a foreign language by the direct method because they do not properly understand the meaning of what they are saying or hearing without some kind of "clue" in their native language. The Bulgarian equivalent of each foreign word or phrase was, however, read very quickly and in a relatively soft, neutral tone of voice—almost a monotone. Undue attention was not supposed to be drawn to it.

Since rhythm augments the sending (as well as the receiving) of thoughts or images (Ostrander and Schroeder, 1974, pp. 146–147), and since metered language is said to activate the right hemisphere of the brain,<sup>8</sup> each foreign language phrase and accompanying Bulgarian translation was read according to a precise rhythm; insofar as was possible, proper intervals were maintained between each part of the "trinity." According to cassette recordings made of language classes I observed at the Institute of Suggestology in June 1971, the teacher read the language materials in the following order and with the following timing: Bulgarian translation of phrase-to-follow: two seconds; foreign language phrase: four seconds; pause: two seconds. A simple example from the 1971 English manual follows:

Tia pita vsichki kursisti (two seconds) + She asks all the students (four seconds) + pause (two seconds).

The reading proceeded smoothly in the continuous rhythm of 2:4:2 until the end of the active session. At eight seconds per Bulgarian translation, foreign language phrase and pause, for the reading of each group of three phrases and appropriate Bulgarian equivalents, 24 seconds was required. Each dialogue comprised ten pages; each page contained five groups of three sentences (or sentence-fragments). A given page took 120 seconds or two minutes to read; a ten-page dialogue was read in 20 minutes. According to experts consulted in Paris, 20 minutes is the ideal meditation period in yoga.

While the teacher maintained the correct "reading rhythm," the students would breathe deeply, rhythmically and continuously from the abdomen. Ideally, their breathing rhythm would coincide with the reading rhythm: two seconds' inhalation (Bulgarian translation); four seconds' breath retention (foreign language phrase); two seconds' exhalation (pause). During the special reading of the active session, the students closely watched the language program. On the printed page, as mentioned, the material-for-memorization was visually arranged in threes, in the form of paired associates and with the foreign-language phrases on the left-hand side of the page. Used in Soviet hypnopedia, paired associates have been shown to be a memory-training device. The left-hand side of the page, according to Aleko Novakov, is considered more important than the right-hand side, because newspaper editorials, i.e., items of importance, appear on the left side of the page. One tends to remember what is considered important. While the foreign language phrase was being read, the students simultaneously retained their breath for a count of four seconds, looked at the appropriate part of the text (on the left side of the page) and mentally repeated to themselves the given phrase or word-group in the foreign language. The active session continued without a break for some 20 minutes.

## **THE PASSIVE OR CONCERT PART OF THE SESSION**

The active part of the special session in the original suggestopedic language class was immediately followed by its passive or concert equivalent. According to the Institute teachers interviewed, Lozanov received the idea of background "music" of some sort when he was in India listening to a famous yogi who was speaking over a peaceful-sounding rhythm of waves emanating from a lake. It was Novakov, however, who was trained in music as well as acting and, of course, language teaching, who devised the initial concert session. (The Novakov version of the session is still being used in the former Soviet Union. It was videotaped in 1974 at the Moscow Foreign Languages Pedagogical Institute by an American of Russian origin, Dimitri Devyatkin).

During the second part of the special session, the students did not watch the printed text but, with eyes closed, they continued to breathe deeply while listening to a recording of excerpts of baroque music over which the teacher acted out the lesson dialogue with an emotional or

artistic intonation and in a soft, soothing voice. The students were told that they were attending a concert and that they were to concentrate passively or inwardly on the lesson dialogue. Freed from thought and worry, they were able to rest and relax after an intensive class lasting several hours. The music was transmitted into the classroom through two loudspeakers (placed equidistant from the teacher on the wall behind him/her) and the material-for-memorization was read in a rhythm and with an emotion that accorded with the music. (In actual fact, according to recordings made in 1971 at the Institute of Suggestology, this rhythm of 2:4:2 was the same as in the "active" session; in the "passive" part, however, rhythmic breathing was linked to rhythmic reading which, in turn, was linked to the rhythm of the musical excerpts. Breath [or breathing], intelligence [or concentration] and the rhythm of the music were all united as they are in Indian music and meditation).

During the "artistic rendering" of the text (i.e., the intonation or tone of voice used suited the material), the Bulgarian students were emotionally involved with the "pleasant, psychologically true" material and mentally reenacted (or visualized) the scene while concentrating on the music (or, in other words, their attention to the language material was passive or indirect). (It might be noted here that, particularly in the late 1960s and early 1970s, Bulgarian students, in contrast to North American ones, were in what might be called the pre-television phase of development and hence had preserved their imaginative powers intact; experts claim that imagination is usually dulled by the constant watching of television programs. In contrast to North American students who often need training in visualization before they can benefit from a suggestopedic language class, one must assume that the Bulgarian students did not need such a preliminary training). By imagining the situation described by the text as if they were at a concert listening to "program music," the students realized a process which Novakov called "intériorisation du langage." According to the experiments conducted at the Institute of Suggestology in the late 1960s and early 1970s, this "interiorization of language" furthers the students' ability to speak and communicate as well as memorize.

For the "concert" part of the special session, musical excerpts were chosen from eighteenth century baroque instrumental music according to what the Institute members called "suggestopedic" criteria. Rhythm, melody (or emotional tone) and instruments were considered from the vantage point of Suggestopedia, i.e., were analyzed in terms

of their contribution to a state of relaxation (slowing down of the pulse, increase of "alpha" waves in the brain). Baroque compositions were preferred for the "concert" because of their qualities of structure and symmetry, the use of a well-defined key, one dynamic level and one tempo throughout a given movement, the use of a *basso continuo* (or bass accompaniment) to indicate the rhythm, standardized harmonic progression and the appeal to the "affections" or "passions" in the sense of the spiritual movement of the mind (J. Guilhot, M.-A. Guilhot, Jost and Lecourt, 1979, p. 28, p. 39; Lozanov, 1978, p. 270). Such characteristics of baroque compositions as unified tonal and rhythmic schemes, the use of one basic melody or theme to correspond to one "affection" or "passion" and the repetition of rhythmic patterns lead to possible analogies with the *raga* in Indian music with its unity of emotion and mood.<sup>9</sup> It is entirely possible that, by using baroque music in the original suggestopedic language class, the staff members of the Institute of Suggestology were trying to create the same conditions for "meditation" as Indian music does for the yogi.

The original concert session (or passive part of the session) was divided into three parts: (a) a two-minute introduction which served as a "countdown" (the opening Sarabande from Bach's *Goldberg Variations*); (b) a series of slow movements from baroque chamber music, lasting some 20 minutes, over which the teacher acted out the lesson dialogue with an emotional or artistic intonation and during which the students, with eyes closed, meditated on or visualized the scene the text described;<sup>10</sup> (c) a fast, cheerful flute excerpt from Telemann, lasting some two minutes, which brought the students out of their deeply relaxed state. This three-part "concert" corresponds to a three-part session in music therapy: calming-down, relaxation, awakening (Guilhot et al., 1979, p. 113).

Immediately following the active part of the session, there was a musical interlude of some two minutes which served as an introduction to the "passive" or "concert" part. No language material was read during these two minutes. As mentioned, the excerpt favored by the Institute of Suggestology in the 1960s and early 1970s for the "opening movement" was the initial Sarabande or Aria to Bach's *Goldberg Variations* which, according to musical legend, were written to cure the insomnia of a certain Count Kaiserling. The attention of the students was summoned by a moderate tempo (MM 72-80), that of the normal human pulse, a graceful, stately air, a complex rhythm with an accent on the second beat of the bar, unified dynamics (the piece was played on the harpsichord, as opposed to the piano, in the Institute's

recording). Through the music (and only through the music), the students were gradually led into the state of relaxation necessary for the "passive" perception of the language materials during the "concert."

The language dialogue for the day was read over a background of slow movements from baroque instrumental music and the reading and the musical accompaniment began immediately following the conclusion of the musical interlude or introduction. Music brings into play the right hemisphere of the brain and language the left hemisphere and the reading over music during the concert session is said to harmonize the left and right hemispheres of the brain.<sup>11</sup> The slow movements for use in the original suggestopedic concert were excerpted from the *concerti grossi* of Corelli, Handel, Vivaldi, Bach and Telemann, representative baroque composers who favored the use of a melodic line over a ground bass. To give but one example, the slow movements of Vivaldi's *The Seasons*, four in number, were taken out of their respective *concerti* and "strung together," one after the other, to form a "pastoral" sequence. (There was also a yogic key progression in the sense that the series of excerpts started with low notes and moved slowly into the upper register). Each slow movement chosen was characterized by one main key, one basic meter, one major theme, one "affection" or mood: lyrical, expressive, meditative. Each *adagio* or slow movement had a tempo of 60 beats to the minute (i.e., one quarter note or equivalent lasts one second). Each "excerpt" featured a sustained melody in the violin or stringed-instrument section played over a rhythmic bass accompaniment, thus creating a combination of lyrical emotion or spirituality and a precise "natural" rhythm, that of the clock or a slowed-down human pulse (Guilhot et al., 1979, p. 34, p. 114). According to the research conducted by Dr. Alfred Tomatis and his staff, high frequencies bring about a state of relaxation, on the one hand, and stimulate the cortex, on the other. The violin is the musical instrument with the most high frequencies (Tomatis, 1972; Madaule, 1973). Within the sequence of slow movements, in order to give some variety to the proceedings, there were changes in key or mode (major/minor) from one slow movement to the next. There might be an alternation in rhythm from the duple meter of one slow movement to the triple meter of the next slow movement and, of course, each slow movement had a different air or "tune." In spite of these differences in melody, mode and meter, however, each slow movement had the same pace (MM 60) and, essentially, the same meditative mood or "gentle affection." The cumulative effect of these slow movements—20 minutes of meditation—may be compared

(as mentioned above) to the “charm” or irresistible impression created by the repetition and development of one emotion in the Indian *raga*. The succession of baroque slow movements contributed to the state of relaxation and meditation (the “alpha state”) that was necessary for student “absorption” of the language materials.

The teacher was expected to maintain the “correct” rhythm of the language dialogues over the musical background of calm, pleasant, soft and slow-moving music while, at the same time, giving each phrase of the appropriate dialogue an inspiring or emotional tone—one that accorded with the meaning of the phrase being read. (According to books on music therapy, the association of music with a soft and soothing voice brings about a state of profound relaxation in the subject).<sup>12</sup> Assuming that the slow movement is in compound double time (4/4), there would be four quarter notes, or equivalent, to the bar. Since, with a metronome speed of 60, each quarter note has the value of one second, each bar in 4/4 time would make up four seconds—just enough time for the reading of the foreign language phrase, on the one hand, or for a pause and a Bulgarian translation, on the other. To make a total of 24 seconds (or three phrases in the foreign language with accompanying Bulgarian translations at eight seconds per group), we would need the equivalent of six bars in 4/4 time. In 3/4 time (an example of triple meter), the assignment of language materials is somewhat more complicated, as there are only three quarter notes or equivalent (i.e., three seconds) per measure. However, 3/4 time makes for better “phrasing,” as eight bars (the usual equivalent of two musical phrases) make up the 24 seconds needed for the reading of three foreign language phrases with their Bulgarian translations. While maintaining the proper rhythm, the teacher acted out the dialogue so that the emotion of the text harmonized with that of the music: lyrical, pleasant, meditative, expressive and so on. The voice, however, was always soft and soothing, although it was always clearly heard over the music.

While listening to the slow movements, the students continued to breathe deeply and rhythmically from the abdomen and thus coordinated their breathing not only with the rhythm of the language dialogues but also with that of the music. The students’ eyes were closed during the “concert”; they were not, however, supposed to fall asleep. While they did not mentally repeat the foreign words and phrases as in the “active” session, the students imagined the scene for themselves (thus following the “inner” concentration of yoga) while listening to the melody and breathing with the rhythm of the music.

Because of the lyrical and rhythmic music, the artistic and rhythmic rendering of the text by the teacher, the rhythmic deep breathing and meditative state of the students, the language materials were memorized or absorbed "effortlessly." Although this language learning process looked easy, in actual fact, a tremendous amount of work and preparation was involved in the original suggestopedic session; both teachers and students were specially trained for their respective roles and it was only because they fulfilled them so well that their performances seemed effortless.

The final excerpt of the original suggestopedic concert (which lasted about 25 minutes in all) was a cheerful *allegro* of some two minutes, over which no language material was read. To contrast with the rich sonority and/or brilliance of the stringed instruments featured in the slow movements, a joyful end to the language class was provided by the clear, bright sound of a virtuoso flute piece in a major key, taken from the compositions of Telemann. This flute solo stimulated and refreshed the students after a session lasting almost an hour (not to mention a language class of some three to four hours). (The three kinds of music chosen for the "concert" may be compared to the three types of intonation used in the "active" session: straightforward introduction, soft and meditative interlude, loud and cheerful finale). At the conclusion of the "concert," the students left the classroom in good spirits and with the knowledge that they had already done their homework, especially insofar as the memorization of vocabulary was concerned.

At the Institute of Suggestology in the late 1960s and early 1970s, Lozanov and his colleagues found that Suggestopedia speeded up the assimilation of a foreign language and that, because of the relaxation session, course members felt little or no fatigue after a lengthy class. (Indeed, the physical and mental health of students usually improved as a result of taking a language course at the Institute. Like Counseling-Learning, Suggestopedia was [and is] interested in the development of the whole student). Vocabulary and even grammar were absorbed easily without the intense, conscious effort normally required for memorization or rather, because the students' powers of concentration were heightened (especially during the session), their memorization of the material was greatly accelerated. Students were able to converse easily after a very short period of time (three to four days) and, according to experiments conducted by the Institute's staff, they were able to recall their verbal knowledge on tests administered up to a year after the course was taken.

The original version of Suggestopedia owed its success to the large number of memory-training elements which it incorporated into a language class. Some elements were similar to those used by other language methods (both new and traditional): repetition, role-playing, games, story-telling, singing, group activities; relevant and emotionally appealing language materials; dynamic, competent instructors. Some elements came from Soviet hypnopedias and/or Soviet linguistics: paired associates, inner speech, rhythmic presentation of language materials (especially vocabulary items). Some appear to have been invented by Aleko Novakov: the *mise en page* of the language dialogues; the role of "interiorization of language" in communication. Some came from Lozanov's original six principles of Suggestopedia: authority (of the teacher); infantilization (of the students); double-planeness (the importance of the environment and the teacher's personality); rhythm (or rhythmic presentation of materials); intonation (the teacher's tone of voice or voice quality as well as the three intonations used during the active session); concert pseudo-passivity (the state of relaxed alertness achieved during the passive or "concert" session). Some elements can be related to research on the two hemispheres of the brain (the use of music and visualization, for example, to improve language retention) and some relate to other communication-based approaches (the use of physical activities to reinforce language items, as in Total Physical Response; the combination of audio and visual elements and the use of high-frequency violin music as in the Tomatis Approach). The belief in the students' potential can be related to Rosenthal's *Pygmalion in the Classroom*.

The most effective memory-training elements, however, relate to yoga: outer/inner concentration (as used in the active and passive sessions); the three intonations of the active session; the Savasana pose (during the "concert"); deep, rhythmic breathing (as originally used during the session); visualization of the pleasant scene described in the language dialogue; a slow-moving musical beat of 60 to the minute (the ideal meditation rhythm in Indian music); "ideal" 20-minute sessions; coordination of breathing with concentration and music rhythm; mind/body harmony; a state of relaxed alertness to promote unconscious assimilation of materials. Indeed, one might argue that Lozanov's original six principles of Suggestopedia also come from yoga as authority, infantilization (student confidence), double-planeness (the role of the environment and the teacher's personality), rhythm, intonation (or correct positioning of the voice) and pseudo-passivity (a state of relaxed alertness) are also (as we shall see) incorporated into

other systems derived from, or influenced by yoga—Sophrology, the Tomatis Approach, to name but two. As mentioned in Chapter 1, the very term “pseudo-passivity” can be found in books on yoga to describe the state of relaxed alertness that is realized by doing the appropriate muscle relaxation, mind-calming and deep-breathing exercises in the Savasana posture. After observing language classes at the Institute of Suggestology in 1971, a French medical doctor and researcher remarked that they were “entirely based on yoga.” The memory-training elements derived from yoga which were an integral part of the original suggestopedic language class should not be overlooked by teachers and researchers in an era when students suffer (perhaps more than in the past) from fatigue and stress and when, because of television and other factors, their concentration (and memorization) is in such need of improvement.

## NOTES

1. The original suggestopedic language class made frequent use of the “trinity.” The language class had three parts; new material was repeated three times (once in a traditional manner and twice during the session); phrases were read in groups of three; three different intonations were used during the “active” session; during the “passive” or “concert” part of the session, three different types of movements from baroque instrumental music were used.
2. In *Suggestology and outlines of Suggestopedy*, the official English translation of the Lozanov thesis (as was mentioned in our previous chapter), references continue to be made to this form of the “session.” (See, for example, p. 25 and p. 268). In any event, this is the version of the session as I witnessed it at the Institute of Suggestology in 1971 and as the session (and the rest of the suggestopedic language class) was very largely—although not entirely—explained to me by Aleko Novakov in 1971 and subsequently.
3. For an account of games and sketches in the suggestopedic language class, see Bélanger, 1978, pp. 216 ff.
4. Originally the Mauger-Gougenheim method was utilized for parts one and two of the “suggestopedic cycle,” according to the prescribed pattern: review of material learned during the previous lesson; explanation of vocabulary and content; reading of the appropriate passage; grammatical explanations and written work. (See: Mauger and Gougenheim, 1955–56; Saint-Georges, 1961; Frérot, 1965).
5. See Laihiala-Kankainen, 1988. This report is largely devoted to “intensive teaching” in the former Soviet Union and discusses Suggestopedia within

this context. Several sections are devoted to the important role of the group or collective in language teaching and learning.

6. According to Shuck (1991, p. 333), "knowledge which is personalized and integrated into a student's repertoire of experiences is easier to learn."
7. There are references to the difficulties of attaining the state of relaxation, especially in the unofficial English translation of the Lozanov thesis, but also in *Suggestology and outlines of Suggestopedya*, pp. 25–26.
8. Joiner (1984) mentions that an article in *Poetry Magazine* claimed that metered language activates the right hemisphere and that the brain best comprehends metered language broken by pauses at three- to four-second intervals. "This type of metered language has been found to dominate the whole tradition of both Western and Eastern poetry" (p. 336).
9. "Indian music, like Arabian and Persian, always centres around one particular emotion which it develops, explains and cultivates, upon which it insists, and which it exalts until an impression is created on the listener which is almost impossible to resist. The musician can then, if his skill be sufficient, lead his audience through the magic of sound to a depth and intensity of feeling undreamt of in other systems" (Daniélou, 1969, p. 91). See also Guilhot et al., 1979, p. 29.
10. This visualization corresponds to visualization exercises used in North American stress-management programs and accelerated-learning classes—e.g., "imagine yourself in a pleasant scene, say, in nature"; the passive session also corresponds, of course, to the inner concentration or meditation of yoga.
11. See Williams, 1983. Williams emphasizes that linking words with an image (visualization) and using music are important techniques for right-brain learning.
12. See Guilhot et al., 1979, p. 30 and p. 39. Yoga emphasizes the correct positioning of the voice and, in Sophrology, a system similar to the original version of Suggestopedia, Dr. Alfonso Caycedo emphasizes voice quality and calls the special voice required to induce a state of relaxation in the subjects: "Terpnos Logos."

## **Part II: Background and Complementary Elements**

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## CHAPTER 3

# Suggestion and the Western Tradition

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It is very evident from reading his thesis, *Sugestologiia*, and his book, *Suggestology and Outlines of Suggestopedya*, and by perusing the bibliographies contained in these volumes, that Dr. Lozanov is well versed in the theory, practice and history of suggestion, not only in Eastern Europe and Russia but also in the West. Lozanov's Suggestology (the science of suggestion) and Suggestopedia (the application of suggestion to pedagogy) are highly original creations, but they nonetheless owe a good deal to work previously done in the field of suggestion in the countries of the former Soviet bloc (and, in particular, Bulgaria and Russia). Lozanov has also been influenced by work done on suggestion in the United States and in Western Europe (especially in France by Bernheim, Binet, Baudouin, Janet, Charcot and Liébault).

In contrast to Russia and Eastern Europe where suggestion is widely used in medicine and psychotherapy, in the West, suggestion has had a highly controversial history and, indeed, the subject is still surrounded by controversy. While, in times past, it has been intertwined with magic and religion, in more modern times (since Mesmer and the late eighteenth century), although nearly every important psychologist (Binet, Bernheim, Freud, James, Janet, McDougall, Pavlov, Sidis, Wundt) dealt with the subject and suggestion together with hypnosis enjoyed an enormous vogue in the late nineteenth and early twentieth centuries, suggestion has been linked to the stimulation of irrational behavior(s), to conditioning and psychopathology, in addition to

hypnosis. (With or without the induction of hypnosis, however, suggestion can have very powerful effects and hypnosis can be induced without suggestion). Hippolyte Bernheim in the nineteenth century defined suggestion as an "act by which an idea is introduced into the brain and accepted by it" (see: Bernheim, 1980, p. 18) and linked suggestion to persuasion and reason. Other researchers have proposed that suggestion need not be opposed to reason and that the influence of suggestion can be enhanced through argumentation. Suggestion, however, is derived from the Latin *subgero* or *subgere* and means "to carry (on) or conduct underneath" and the term tends to be linked to manipulation. The standard definition of suggestion to which scientists in the West adhere is the insinuation of a belief or impulse into the mind; the introduction or bringing about the acceptance of an idea without critical argument or rational persuasion. (Sidis [1907, p. 15] described a suggestion as an intrusive idea that was accepted in an uncritical and automatic fashion). McDougall's 1908 definition, while one of the earliest, is still widely accepted. He stated that suggestion is a "process of communication resulting in the acceptance with conviction of the communicated proposition in the absence of logically adequate grounds for its acceptance."<sup>1</sup> Whereas the attitude of the recipient is important if suggestion is to work, the "charm" of the communicator, his (or her) attitude and expectations, voice and body language exert a decisive effect on the listener so that the idea or message proposed is accepted. Researchers on suggestion point out the extreme importance of voice quality on perception of a message transferred and on the willingness to act on this message (Gehm, Appel and Apsel, 1989, p. 351). A warm, sympathetic personality generally facilitates the sending and increases the impact of a suggestion as does a good relationship between sender and receiver.

Whether directly or indirectly, authoritatively or persuasively, implicitly or explicitly, overtly or discreetly, deliberately or unintentionally, the subject's behavior or experience will be always guided in a certain direction by the suggester. Suggestion can be an action, a process and a result (the subconscious realization of an idea). The word "suggestion" can refer to a specific influential message or communication (e.g., "the room is becoming very hot"). Or the same word can refer to parts of the larger process, or the entire process by which suggestions are delivered and received. (For instance, someone could refer to the "suggestion situation" or the "suggestion procedure" or the "suggestion process"). A person might also state that an act or belief was the result of suggestion, which implies the method as well as the message.

There are different methods or communication channels by which suggestions are conveyed: heterosuggestion (from one individual to another); collective (group or mass) suggestion; auto-suggestion (in which the subject acts on him [her] self). In the final analysis, all suggestion may be auto-suggestion in the sense that the thought acts on the body and one reinforces or acts upon an idea one wants to realize.<sup>2</sup> Suggestions may be spontaneous (i.e., they occur by themselves), applied (produced through commands or persuasion from one person to another) or "relaxed" (executed in a soft, soothing tone of voice). The force of a suggestion can have an effect on the receiver. Suggestions that are presented gently will be perceived differently from those delivered with emotive and shock value. Responses can also be expected to vary in terms of the amount of "request" or "command" inherent in the suggestion. Command suggestions emanating from an authority figure such as a military leader or prison warden brook no alternatives and no disobedience. At the other extreme, relaxed, persuasive suggestions are generally used in religion and medicine. A factor related to force of suggestion is duration of suggestion. In the same way that degree of force can influence the receiver, long-lasting or repetitious suggestions vary in effectiveness from suggestive communications which have very brief periods of exposure (or duration).

Suggestions may be given, usually by a therapist or medical doctor, while the subject or recipient is in a state of sleep, hypnosis or the waking state (as Lozanov's research shows). As defined by Wagstaff, a hypnotic suggestion is one that is delivered during or after the initial part of the hypnotic induction procedure and involves instructions to the subject suggesting to him or her that s/he will respond in a certain way. Wagstaff adds that these instructions always occur while the person is said to be under the influence of induction and before the individual is told to "wake up" (Wagstaff, 1981, pp. 14-15). Nonhypnotic (or "waking") suggestions, on the other hand, are those which are administered without formal hypnotic induction procedures. A distinction has been made between normal suggestion (which takes place when the subject is in a waking state) and abnormal suggestion (which takes place in the condition of hypnosis). However, there is still a lack of agreement among researchers concerning a useful definition for hypnosis.

Suggestions may be direct or indirect; verbal or non-verbal. In direct suggestion, the desired or expected result or response to the suggestion is stated clearly—as in a command, for example. Indirect suggestion

does not make explicit the response expected, but leaves the result of suggestion to the subject. Instead of openly commanding or dictating to the subject, the experimenter produces some object or makes a movement, a gesture, which in silent fashion tells the subject what to do. Indirect suggestion is a permissive mode of influencing or a method of indirect appeal to the person to be influenced and direct suggestion is an authoritative one. Verbal suggestions are conveyed by language content. Nonverbal suggestions include tone of voice, body language, clothing and environmental stimuli; cues given may be visual, auditory (or, indeed, kinesthetic, gustatory or olfactory). Suggestions may be positive or negative or even neutral. Suggestion may be personal or impersonal. Suggestion generally works best if it is in the direction of the individual's (or society's) values and culture and if the interests of the recipient are in harmony with those of the sender (or communicator).

Suggestibility refers to the effectiveness of a given kind of suggestion under carefully stated conditions for a given individual (Hilgard, 1991, p. 39). Suggestibility is generally defined as the degree to which a person is open to suggestion; the term "suggestibility" is used to indicate a person's propensity to respond to suggested communications.<sup>3</sup> In the West, although researchers such as Binet and Sidis were concerned with proving that something like normal suggestibility exists and that it could be observed empirically, suggestibility has generally been viewed as a less than noble human characteristic and is often linked, not only to hypnotizability and conditioning, but also to conformity to (or compliance with) group pressure; lack of individuality; tendency to submissiveness; susceptibility to preconceived ideas and manipulation; memory distortion; weakness and immaturity; instability and indecisiveness; credulity, gullibility and even simple-mindedness; to be "suggestible" is to be easily influenced by ideas provided by other persons and to subordinate oneself to an authority figure and/or a group. Certain factors are said to have an influence on suggestibility (or to create a state of suggestibility): the authority and behavior of the information source (we do not tend to accept suggestions from persons whom we consider to be of lower standing and inferior power); an attitude of obedience to authority on the part of the recipient and his/her confidence or faith in the suggested idea (i.e., the expectations and attitudes of the recipient). The personal characteristics of the communicator and an individual's motivation or willingness to respond to suggestions are important aspects of research into suggestion.

While there is a good deal of controversy in the field of suggestion and suggestibility in the West, there is general agreement that there are differences in the range of suggestibility and that the degree and speed of acting on suggestions can be measured. A considerable amount of research has attempted to delineate specific variables that relate to suggestibility: age, sex, intellectual capacity, personality characteristics, mental health status, and so on. Since most suggestibility tests are, in effect, a measure of hypnotizability, most of these variables (in spite of the pioneering experiments by Binet in the late nineteenth century to assess the suggestibility of a person without hypnosis) have been studied in the context of hypnotic responsiveness. Certain personality variables are associated with increased compliance to suggestive communications. Students tend to be conditioned to accept the suggestions of authority figures without persuasion or argument. Children are generally more suggestible than adults (probably because the former are more trusting and more influenced by the authority of the source of the suggestion). Responsiveness to suggestion decreases with age. Although the findings in this area are mixed, women tend to be more suggestible than men. Less education and an undeveloped critical sense (or a lack of awareness of the "suggestion process") make for increased suggestibility as do such environmental conditions as subdued lighting and soft and/or rhythmical music. An attitude of trust (or love) makes one more suggestible as do states of drowsiness or fatigue, relaxation and hypnosis. The period before going to sleep is one of maximum suggestibility. Hypnosis itself has been defined as the placing of an individual in a highly suggestible state or as "enhanced suggestibility."<sup>4</sup>

Suggestibility may be classified into primary, secondary and tertiary. Primary suggestibility is the most commonly researched; it is the result of direct suggestions (usually verbal and monotonous-sounding ones) that yield automatic, non-volitional ideomotor responses. The experimenter suggests an idea or an activity (such as body sway, arm levitation, for example) by means of a concrete stimulus and the recipient's movements or muscular activities, which occur involuntarily because of the thought or image of a movement, are observed and evaluated. (Primary suggestibility is linked to hypnotizability). Secondary suggestibility is linked to the sensory processes and indirection; it involves indirect suggestion wherein the communicator does not make explicit the desired behavior and there is no correlation with hypnotizability.<sup>5</sup> To provoke this type of suggestibility, the experimenter suggests an idea or an activity based on the imagination, expectations or on

auditory or visual stimuli. The Progressive Lines and the Ink Blot tests are commonly regarded as measures of this type of suggestibility. Tertiary suggestibility (which some psychologists believe exists) is based on "prestige" suggestion(s) coming from the society or a high-status individual and involves attitude change consequent upon persuasive communications originating from a prestige source. Certain of these suggestions relate to social norms; others are of an "information" type (Bélanger, 1978, p. 74). It is well known that there are many other forms of communication that can be interpreted as suggestions, including "leading questions," now categorized as interrogative suggestibility (Gudjonsson, 1989).

According to researchers such as Vladimir Gheorghiu, suggestion is by no means a marginal aspect of cognitive activity: "suggestion phenomena are subsumed under various psychological categories and are part of many cognitive and social processes" (Gheorghiu and Kruse, 1991, p. 71). Suggestion is used, with both positive and negative consequences, not only in religion and magic but also in medicine and therapy, as well as in politics, advertising and education. Primitive medicine was (and is) largely based on suggestion. Magical rites were (and are) techniques of suggestive therapy, used for positive or negative effects. The suggestive power of religion and religious leaders has been demonstrated throughout history. Faith healing probably works through the power of suggestion (suggestions can be used to achieve profound organic or physiological changes) and depends both on the power of the suggestion(s) and the suggestibility of the "patient." Suggestion has been used in surgery (especially in Eastern Europe) to relieve pain; it has been postulated that acupuncture works, at least in part, through suggestion. (It has been hypothesized, too, that, had it not been for the discovery of anesthetics, hypnosis and suggestion would undoubtedly have become much more popular in modern medical circles). Drugs (new ones, in particular) are said to work because of the "placebo" effect—the confidence the doctor expresses in their efficacy. Many books and articles have been written about the use of "suggestion" in advertising (suggestion is said to be an indispensable aspect of media advertising) and the conveying of political messages. In education, it is assumed that everyone acts on a rational basis, on the basis of reason as opposed to emotion. However, as researchers such as Rosenthal and others have found, education is not an entirely intellectual and rational process. Students may remain unchanged by intellectual arguments but can be changed by suggestion(s) directed towards the unconscious. Self-image and

confidence as well as learning can be improved through the use of strategically employed suggestion(s) in the classroom. Suggestion can be used in a humanistic way to create successful learning experiences for students of all (or varying) abilities.

For Lozanov, in contrast to many (or most) Western researchers, suggestion is a normal phenomenon, one that is a natural (and universal) part of human experience. Suggestion is inherent in everyday human communication on a verbal and a nonverbal level; it appeals to both logic and emotion. Following Bernheim (1980, p. 46), Lozanov believes that "suggestion is in everything." According to Lozanov (1978, p. 201), "interpersonal communications are always global and simultaneously conscious and unconscious." Any sensation or perception coming from the external world is a suggestion, whether it is unconscious or intentional. Although he does not mention him in his bibliography, Lozanov would be in agreement with Titchener (1928, p. 450) who stated that suggestion is "any stimulus, external or internal, accompanied or unaccompanied by consciousness, which touches off a determining tendency." As we mentioned in Chapter 1, Lozanov (1978, p. 201) defines suggestion in his thesis as follows: "Suggestion is a constant communicative factor which chiefly through paraconscious mental activity can create conditions for tapping the functional reserve capacities of personality." Suggestology/Suggestopedia, as we have seen, is particularly interested in the investigation and utilization of subsensory signals or subliminal stimuli which come from the teacher and/or therapist and from the physical and social environment and which are absorbed into the unconscious mind before receiving a conscious expression.

Lozanov is interested in individual (hetero) suggestion but he is especially interested in collective (or group) suggestion. Lozanov uses the possibilities of collective suggestion principally in psychotherapy and pedagogy. Following in a certain East European and Russian tradition, as we have seen, Lozanov insists that any psychotherapeutic method (and, indeed, any medical cure) is essentially based on suggestion. (In *Suggestology and Outlines of Suggestopedya*, he details his clinical work using suggestion, especially the "whispering method," for curing ailments and reducing or alleviating pain, as well as his experiments using suggestion in "painless surgery" [pp. 114 ff]). His principal contribution to the field of suggestion, however, is that of linking suggestion to education, of integrating all types of suggestion (direct, indirect, verbal, nonverbal, interpersonal, environmental, etc.) into the educational process and of directing suggestion towards

liberating the unconscious reserves (or untapped capabilities) of the human mind.

Like Binet and Sidis, Lozanov prefers indirect suggestion, as it is longer lasting,<sup>6</sup> and he believes that suggestion can be beneficial if it bypasses the "critical-logical barrier" (i.e., what researchers call our "conscious monitoring authority"), especially insofar as human capacities are concerned. Although he has performed experiments using suggestion in sleep and hypnosis (especially hypnotic age regression), following Binet and Bernheim (Bélanger, 1978, pp. 53ff), Lozanov prefers to use suggestion in the waking state—both in group therapy and for purposes of enhancing learning. (In *Suggestology and Outlines of Suggestopedya*, Lozanov states that "suggestion by itself is sufficient to improve memorization and there is no need for hypnosis" [p. 153] and "our investigations and the practice of suggestopedya have proved that hypermnesia can be found not only in a state of hypnosis, but in a suggestive [and waking] atmosphere as well" [p. 151]). Suggestions used by the therapist or teacher must, however, be positive ones, those which provoke in the patient (or student) positive behavior modifications.<sup>7</sup> Negative suggestions (especially those which set limits on possibilities for healing or learning) must be abolished through a process of *de* suggestion. Indeed, for Lozanov, the suggestive process itself is "always a combination of suggestion and desuggestion" (p. 166). Desuggestion frees a person from former limiting and discouraging (auto) suggestions, while suggestion provides creative encouragement for new norms concerning the capacities of the individual (p. 184). Lozanov is interested in verbal (and nonverbal) suggestion(s) which can bring about positive psychological (and physiological) changes in the patient/student; the latter, however, in a waking state, is aware of what is going on and participates in the process at both the conscious and unconscious levels. For Lozanov, in contrast to most Western researchers, a logical presentation can have its own "suggestive effect" (p. 59).

For Lozanov, suggestion, then, is a positive concept. So, too, is the concept of suggestibility (or openness to suggestion). While expressing criticisms of Western definitions of suggestibility, in a note in *Suggestology and Outlines of Suggestopedya* (p. 61), Lozanov says that "H. Bernheim (1887) and the Nancy School, in general, maintained that everyone is suggestible under given conditions and that suggestibility is not a symptom of morbidity"; it is a normal phenomenon that can be observed empirically. Although Sidis is not listed in the Lozanov bibliography, Lozanov appears to follow the example of

Sidis (1907, p. 17) in considering the human being to be “a suggestible animal.” Lozanov considers suggestibility a universal faculty (Bélanger, 1978, p. 72) and, like Binet (1900, p. 3), links it to emotion, intuition and affectivity (or sensitivity) as well as to positive expectations, imaginative involvement and the capacity to control the focus of attention. For Lozanov, the act of responding to a suggestive communication, which requires that the individual override or inhibit the mental faculties involved in logic and critical analysis, may have positive results if logical and critical analysis inhibit memory, memorization and learning capacities. Lozanov’s idea of suggestibility corresponds to Annette Shuck’s in her article, “Suggestion in Education,” in that suggestibility is similar to motivation or a change in expectancy. Suggestibility is thus “redefined” as: (a) a willingness to do what the suggester asks; (b) a belief in one’s ability to do it; and (c) the ability to do it. According to Shuck (1991, pp. 332–333), high suggestibility might therefore be used as an indicator for predicting learning performance.

Certain of Lozanov’s experiments at the Institute of Suggestology were designed to test for student suggestibility (Lozanov, 1978, pp. 221 ff) and an outline of tests for primary and secondary suggestibility is included in chapter 4 of *Suggestology and Outlines of Suggestopedy*, “Towards a General Theory of Suggestion” (pp. 63–71). Lozanov also researched such elements as music and relaxation which could increase suggestive/receptive capacities in the students and evaluated this “suggestibility” scientifically (through pulse and brain wave measurements, for example). As the individual becomes more relaxed, he/she becomes more open to positive suggestions—especially if the general atmosphere is relaxed and pleasant. As mentioned in our opening chapter, when conducting his research, Lozanov found that, while in a state of relaxation, students are more suggestible and can receive information more readily—in the form of (ideally positive) “suggestions” coming from the environment and/or from the teacher.<sup>8</sup>

For Lozanov (as mentioned above), suggestion must normally be used when the recipient is in the waking state; in addition, following the East European and Russian tradition, Lozanov believes that suggestion, whether used in medicine or education, must be therapeutic. Suggestion must also be artistic. The therapist or teacher must have the capacities of the trained actor; in the classroom, “suggestive” elements of the various arts (music, theatre, fine arts, etc.) must be used to enhance the teaching process. The teacher must be trained in advance to use suggestion in a positive manner and in all of its aspects.

The suggestopedic method for language teaching is a form of group therapy based on suggestion (Bélanger, 1978, p. 132). Through suggestion(s) directed toward the conscious and the unconscious, students come to view learning as a positive, pleasurable and relaxing experience. (In addition, as Institute of Suggestology student questionnaires have revealed, Suggestopedia improves students' health). Suggestopedia uses suggestion, not as a manipulative technique, but in the context of a humanistic approach to learning; suggestions in Suggestopedia have a potentially significant impact on student performance and a beneficial, therapeutic effect in that the students increase their self-esteem and consideration for other members of the group. When students enjoy learning, they are much more likely to realize their full intellectual capabilities.<sup>9</sup>

The original theoretical elements of Suggestopedia (as we have seen) are based on suggestion: authority of the teacher and prestige of the educational institution; infantilization (confidence and spontaneity of the students—increased through suggestions of child-like role-play or the setting up of an alternate identity);<sup>10</sup> double-planeness (the suggestions coming from the physical and social environment, especially the classroom atmosphere and décor, and from the body language and tone of voice of the teacher); rhythm (in particular, a repetitive stimulus such as a slow-moving, monotonous melody); intonation (or tone[s] of voice); concert pseudo-passivity (suggestibility and receptivity of the students when relaxing and listening to soft and slow-moving music).<sup>11</sup> Two of these original principles relate to the suggester (authority, double-planeness); two relate to the process of suggestion (rhythm, intonation); two relate to the suggestibility of the suggestee (infantilization,<sup>12</sup> concert pseudo-passivity). The “new” principles (referred to in chapter 6 of *Suggestology and Outlines of Suggestopediy*, “Characteristics of the Desuggestive–Suggestive, Liberating–Stimulating System,” pp. 258 ff), viz. joy and absence of tension, the unity of conscious and paraconscious, the suggestive link, also relate to suggestion as do the “new” suggestopedic means: psychological, didactic and artistic.

In the original suggestopedic language class, various forms of suggestion (verbal, nonverbal, direct, indirect, etc.) were utilized in order to draw on the students' functional, intellectual and emotional “reserve potential” and to create a maximum learning effect. Classes were taught by highly competent, personable teachers specially trained in the art of suggestion (especially vocal and gestural). The classroom atmosphere was positive and the classroom décor had an esthetically

pleasing appearance. Emotionally appealing and relevant foreign language dialogues, based on familiar situations, created spontaneous and positive reactions in the students. Students were also free to escape from the constraints of inhibiting, everyday reality through role-play, songs, games and sketches. In the original suggestopedic language class, three forms of suggestion (coming from yoga): command, neutral, whisper, were utilized to enhance memorization of foreign language vocabulary during the "active" session. During the original "passive" or "concert" session, the maximum suggestive effect was achieved when the language materials were read in a soft, soothing voice over a rhythmic background of slow movements from baroque chamber music while the students, with eyes closed, relaxed in their special chairs. According to Lozanov (1978, p. 268), in every well organized communicative process based on suggestion, there is a leading procedure with a ritual or "placebo" meaning. In *Suggestopedia*, "ritualization and placebo-associating" are focused in the suggestopedic session.

While suggestion has been largely neglected in Western pedagogy or has been applied to teaching sporadically, in a very fragmented form or in the context of isolated experiments, Lozanov and his team of researchers and educators at the Institute of Suggestology in the 1960s and 1970s developed an original and global teaching method based on the scientific study of suggestion. *Suggestopedia* shows that the use of suggestion techniques in the classroom can benefit students on both an academic and a personal level and that the subject of suggestion in education should be a greater object of concern and research for Western and North American educators.

## NOTES

1. See: McDougall, 1926, p. 83. There are many, more "modern" definitions of suggestion but they are in the same vein. Gordon Allport (1961) makes specific reference to the rational and critical thinking operations which are conspicuously disengaged during the suggestion process. According to Allport, as a result of suggestion, an individual accepts a mode of behavior or a view without the processes of thought and judgment which properly should be present and play a part. Eysenck, Arnold and Meili (1979, p. 1077) define the suggestion process as one of "communication during which one or more persons cause one or more individuals to change (without critical response) their judgments, opinions, attitudes, etc., or patterns of behavior." Suggestion produces a "compliant response," as

opposed to a “deliberate response to a request” (Hilgard, 1991, p. 38). It is a class of behavior that is not the result of our higher levels of cognitive monitoring and control (Schumaker, 1991b, p. 110).

2. On the subject of suggestion transformed into autosuggestion, Coué is quoted by Baudouin in *Qu'est-ce que la suggestion* (see: Baudouin, 1982, p. 82) and Baudouin is quoted by Lozanov in *Suggestology and Outlines of Suggestopeddy* (p. 56). Emile Coué firmly hypothesized that if people want to change their feelings, behavior and physiology, they can do so more effectively by strongly giving themselves positive thoughts and directions, such as “Day by day, in every way, I am getting better and better.” In the opinion of some researchers, Coué probably started the current popular trend of self-help books on positive thinking and visualization.
3. Sidis (1907, p. 15) referred to suggestibility as “that peculiar state of mind which is favourable to suggestion”; Eysenck, Arnold and Meili (1979, p. 1076) refer to suggestibility as the “individual degree of susceptibility to influence by suggestion and hypnosis.”
4. See: Bernheim, 1980, p. 56 and p. 177. For a discussion of this matter, see Schumaker, 1991a, p. 10; and Cardeña and Spiegel, 1991, p. 93.
5. Secondary suggestibility is defined as “the experience on the part of the subject of a sensation or perception consequent upon the direct or implied suggestion by the experimenter that such an experience will take place, in the absence of any objective basis for the sensation or perception” (Eysenck, 1947, p. 167).
6. But see: Moon, Render, Dillow and Pendley (1988, p. 269) who found that, for foreign language acquisition, “the larger effect size was under the condition of direct suggestion (.74).” It was also found that direct suggestion “produced the larger effect size for foreign language retention (3.00).”
7. Inversely, positive emotions—produced, for example, by background music—increase receptivity of the target person or subject. (See: Lundy, 1989, p. 84).
8. Researchers propose that suggestions about getting more and more comfortable may initiate a shift in autonomic system balance from sympathetic toward parasympathetic dominance. This shift is facilitated by stillness of the musculature and the consequent reduction in proprioceptive and kinesthetic sensation. Closing the eyes further enhances this change and often leads to alpha wave production and eventually theta wave production in the brain. (See: Shea, 1991, p. 261).
9. See: Shuck (1991, pp. 331 ff), in which suggestions for improved memory and motivation to learn were seen to result in better performances. The positive use of suggestions on learning included studies to improve reading performance of slow learning students. Suggestive procedures used to relax pupils before a difficult assignment are also seen as beneficial.

10. Lozanov's infantilization may be compared to the process of "dissociation" in suggestive psychology that allows one to isolate and suppress his/her "conscious monitoring authority." In addition, as response to suggestion (i.e., suggestibility), as well as the capacity for memorization, decreases with chronological age, it is important to suggest to beginning language students that they are returning to a psychological state of childhood.
11. Shuck (1991, pp. 329 ff) mentions studies conducted in the 1940s in the United States in which relaxation, or a sustained state of relaxed alertness, was found to be the best mental state for learning.
12. Binet (1900, p. 390) says that suggestibility for the child is a form of confidence and Lozanov, we recall, links infantilization to student confidence and spontaneity.



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## CHAPTER 4

# Yoga for Relaxation and Concentration

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Derived from the root *yuj* (to bind together, hold fast, yoke) the word yoga serves to designate any ascetic technique and any method of meditation (Eliade, 1969, p. 4). “Classic” yoga, a system of philosophy expounded by Patañjali in his celebrated *Yoga-sutras*, probably dates from the 2nd century B.C., but Patañjali does not expound on a personal system; as he points out himself, he is publishing and correcting the doctrinal and technical traditions of yoga. His *Yoga-sutras* represent a codification of ancient techniques, ones known to Indian ascetics and mystics long before his time. Side by side with “classic” yoga, there are countless forms of “popular” or “mystical” yoga. However, generally speaking, the emphasis in all forms of yoga is placed on self-discipline and concentration of mind, on practical physical exercises and techniques of meditation. The setting for meditation should be one in which there are minimal distractions, in which colors and lighting are subdued (Deikman, 1972, pp. 204–205). The guidance of a master (or guru) is considered to be of great importance.

It is evident, especially from reading the Bulgarian original of the Lozanov thesis, *Sugestologija*, but also from closely examining the official English translation, *Suggestology and Outlines of Suggestopedya*, that Suggestology and Suggestopedia, especially in their initial stages of development, were greatly influenced by yoga. In the bibliography of his thesis, Lozanov also mentions Schultz’ Autogenic Therapy and Jacobson’s Progressive Relaxation, both of which bear a resemblance to yoga.<sup>1</sup>

According to Autogenic Therapy, mental and bodily functions occur simultaneously. Respiration is important (the breathing should be calm and regular) and the eyes are closed in training to shut off outside stimuli. For the achievement of physical relaxation, one may lie down or use a reclining chair or simple sitting posture. Basic therapeutic training consists of six physiologically oriented steps (or autogenic standard exercises): (a) heaviness and (b) warmth in the extremities; (c) regulation of cardiac activity; (d) passive concentration on respiration; (e) abdominal warmth and (f) cooling of the forehead. For advanced trainees, another series of exercises focusses on certain mental activities. The meditation exercises consist of the following: (a) spontaneous visual experience of colors; (b) experience of selected colors; (c) visualization of concrete objects; (d) visualization of abstract objects; (e) experience of a (personally) selected state of feeling; (f) visualization of other persons; (g) answers from the unconscious—to such questions as “What do I want?” Later on in the therapeutic process, there are also physiologically oriented “organ specific exercises” and “intentional formulae” designed to influence, in a more specific manner, certain mental functions and behavior deviations (Schultz and Luthe, 1969).

Developed by another medical doctor, Progressive Relaxation is “simply cultivated natural relaxation.” In Jacobson’s method, the eyes are closed but no attempt is made to control breathing. One is trained to experience muscle relaxation by tensing, then relaxing the various parts of the body. (Jacobson was a pioneer in the use of biofeedback to measure muscle tension). While the imagination of objects may be used to quiet the mind, Jacobson believes that muscle relaxation by itself automatically leads to a quieting of the nervous system and the disappearance of specific mental activities (Jacobson, 1934, 1938).

The yoga investigations of Dr. Lozanov and his staff at the Institute of Suggestology (as mentioned in our first chapter) comprised two aspects: (a) an investigation of the physical exercises of Hatha (or physical) yoga and a scientific measurement of changes in pulse and brain waves that occurred with each posture or *āsana*; (b) a consideration of Raja (or Royal) yoga with its emphasis on mental concentration, self-discipline and meditation (Lozanov, 1978, pp. 108 ff). Attention was paid to the links between the Savasana posture and a state of relaxation and the relationship between certain breathing exercises and a state of mental concentration.

As was mentioned in our second chapter, it is also evident, if one closely examines the original version of Suggestopedia, that the

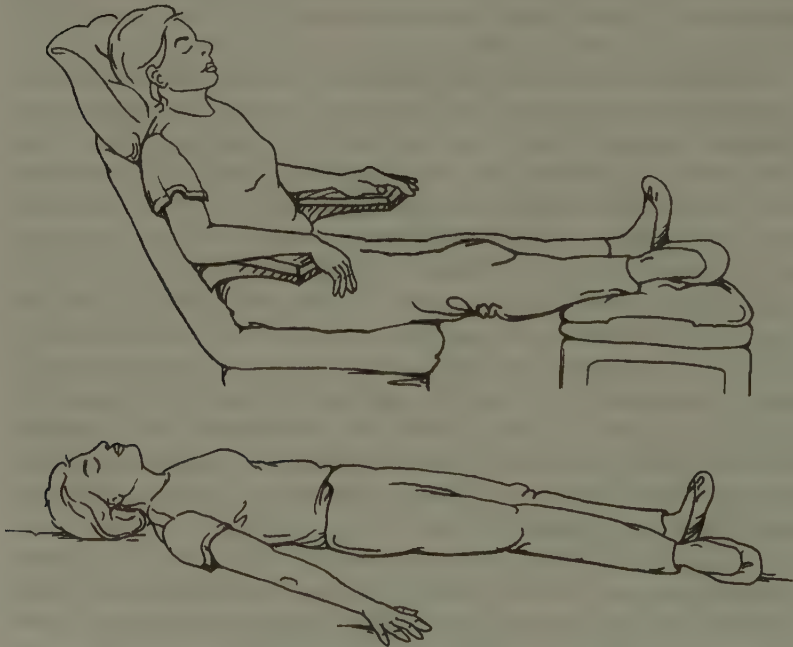
effective memory-training elements in the original suggestopedic language class relate to yoga: outer/inner concentration (as used in the active and passive sessions); the three intonations of the active session; the Savasana pose (during the original “concert”); deep, rhythmic breathing (as originally used during the session); visualization of the pleasant scene described in the language dialogue; a slow-moving musical beat of 60 to the minute (the ideal meditation rhythm in Indian music); an “ideal” 20-minute session; coordination of breathing with concentration and music rhythm; a state of relaxed alertness to promote unconscious assimilation of language materials. Indeed, one could say that the original principles of Suggestopedia come from yoga: authority (of the guru-teacher); infantilization (student confidence); double-planeness (the role of the environment and the teacher’s personality); intonation (or correct positioning of the voice); rhythm (rhythm augments the sending, as well as the receiving of thought or image); and pseudo-passivity (a state of relaxed alertness). The very term “pseudo-passivity” can be found in books on yoga to describe the state of relaxed alertness that is realized by doing the appropriate muscle relaxation, mind-calming and deep breathing exercises in the Savasana posture.

Student questionnaires reproduced in the Lozanov thesis refer to the “crux” of the matter, i.e., obtaining the appropriate state of relaxed alertness, a state in which the body is relaxed but the mind is alert. This state is of great importance for improved memory and concentration. According to books on yoga, it is important to be able to concentrate on a single point, a beautiful object (such as a mandala) or a perfect sound (such as OM or AUM), for the immediate result of such concentration is the removal of distracting thoughts and the elimination of sensitivity to various and sundry sensory stimuli.<sup>2</sup> Since, according to the precepts of yoga, one cannot obtain proper concentration (*ekāgratā*) if the body is in a tiring or uncomfortable posture or if the respiration is disorganized and unrhythmical, it is extremely important to perform certain exercises relating to bodily attitudes and postures (*āsana*) and respiration (*prāṇāyāma*) if a state of concentration is to ensue (Eliade, 1969, pp. 48 ff).

On the plane of the body, *āsana* (or posture) is an *ekāgratā* (concentration on a single point) in the sense that the body is concentrated in a single position. Just as *ekāgratā* puts an end to the fluctuation and dispersion of the states of consciousness and frees one from distractions, so *āsana* puts an end to the mobility and disposability of the body by reducing the infinity of possible positions to a single

archetypal posture (comparable to that of a plant or a sacred statue). The Savasana (or corpse) posture is usually the last of the yogic postures to be executed as it provides rest and relaxation after the other exercises. This posture gives the nervous system complete rest. The circulation of the blood is in complete equilibrium and its distribution is regular. The heart is relieved of stress; nerves and muscles are soothed. (In the original suggestopedic language class, during the special concert session, the alternate Savasana posture was utilized; in this variant of the "corpse" pose, one does not lie down on the floor but sits in a reclining chair with support provided for the neck and head).

The Savasana relaxation exercise has the following form: with the breathing slowed down, one should place one's consciousness on various areas of the body (according to yoga there are 16 vital ones) and, beginning with the feet, a firm but calm auto-suggestive order to relax is given to each area in turn. The consciousness is thus drawn



**Figure 4.1.** Posture for Meditation and Complete Relaxation (Top), Savasana—the "Corpse Pose" (Bottom).

from the feet through the legs (shins, kneecaps, thighs), abdomen, solar plexus, upper chest, spine, hands, forearms, upper arms. When the neck is reached, the "lower" body will be completely relaxed. Attention is then paid to the five key areas of the face: throat, back of head, jaw, eyes and scalp; each of these is mentally relaxed in turn. With the entire body relaxed, breathing slows down and the individual resembles a "corpse." (Whether the body is perfectly relaxed or not can be tested by telling someone to lift, after a stipulated period, either the forearm or a leg to a certain height and then to let it go. If the body is in a truly relaxed condition, the limb raised will fall to the ground like a dead-weight).

However, while the body looks like a corpse and the breathing is slow, the "vital breath" rises toward the head and the mind is alert. Savasana has been called "active passivity" as the subject consciously and intentionally withdraws him (her) self from all parts of the body into the heart and achieves the same conditions as in sleep—except that s/he is awake. Although the mind and body are not asleep (and one should not fall asleep during this exercise), it is said that 10–20 minutes' rest in this posture, with the breathing slowed down and thoughts concentrated on entire and perfect rest, is more valuable than a full night's sleep.

The most important of the yogic exercises for the attainment of concentration is the disciplining of respiration (*prāṇāyāma*). According to Patañjali, yogic technique implies several categories of physiological practices and spiritual exercises which one must have learned if one seeks to obtain the highest form of concentration, i.e., *samādhi*: (a) restraints (*yama*); (b) disciplines (*niyama*); (c) bodily attitudes and postures (*āsana*); (d) rhythm of respiration (*prāṇāyāma*); (e) emancipation of sensory activity from the domination of exterior objects (*pratyāhāra*); (f) concentration (*dhāraṇā*); (g) yogic meditation (*dhyāna*) and (h) supreme concentration (*samādhi*). Yoga believes that there is always a connection between respiration and consciousness and that respiration realizes concentration of the consciousness on a single object, idea or theme (Eliade, 1969, pp. 55–56). Whereas the respiration of an individual in a state of anger is agitated, that of one who is concentrating becomes rhythmical and automatically slows down. To attain concentration, therefore, the respiratory rhythm should be slowed down as much as possible and the student should breathe in such a manner that the three "moments" of breathing, i.e., inhalation, retention of breath and exhalation are "harmonized." Respiration must be made rhythmical so that it no longer troubles us

by its discontinuity. However, through *prāṇāyāma*, one attempts to do away with the effort of respiration; rhythmic breathing must become something so automatic that one can forget it.

According to treatises on yoga, complete yogic breathing consists of a synthesis of the three manners of breathing: abdominal breathing, middle breathing and upper breathing; it is this form of breathing that one observed in the original suggestopedic language class during the session. Correct breathing fills the three parts of the lungs (lower, middle, upper) in an equal manner, thus supplying the body with the maximum amount of oxygen and energy.<sup>3</sup>

One may assume that, before classes began, students at the Institute of Suggestology in the late 1960s and early 1970s were instructed to breathe properly according to an exercise like the following:

Empty the lungs by breathing out through the nose. (Yoga breathing should never be done through the mouth). Exhale very deeply so that the lungs are emptied of stale air. Pull in the abdomen as far as possible to help with the exhalation. Begin a slow inhalation through the nose (thus commencing to fill the lungs); continue breathing in through the nose and raise or distend the abdomen while slowly beginning to fill the lower lung. Continue the slow inhalation and distend the abdomen as far as possible and then the chest as far as possible, making this one single, wavelike movement from the abdomen upward. Continue the inhalation, drop abdomen, keep chest extended and raise shoulders. Slowly and steadily fill in this manner the lower lung, middle lung and finally the upper lung with air. At the top of the inhalation, after the lungs have been filled to their capacity, pause and hold breath for several seconds and then start to exhale slowly through the nose. At the same time, drop shoulders, pull in abdomen, allow the body to relax. Empty upper, middle and lower lungs in the same, slow and continuous manner in which they were originally filled. Pull abdomen well in towards the backbone at the completion of the exhalation process so as to squeeze out all the stale air. Take another breath immediately; do not pause between breaths.

As already mentioned, correct yogic breathing should be rhythmic as well as deep; one should breathe slowly as if sleeping. The aim is to obtain the right amount of air with the minimum expenditure of energy so that the "meditation" can go on for a long time, if need be, without tiredness resulting. By breathing deeply in the slow rhythm of sleep, the yogi can penetrate or experience in perfect lucidity states of consciousness that are inaccessible in a waking condition, i.e., the "altered states" of consciousness that are peculiar to sleep (Eliade,

1969, pp. 55–56). His perception (clairvoyance, telepathic powers) is thus considerably heightened. However, correct breathing must be practiced for some time before the desired results are achieved. The novice in deep, rhythmic breathing almost always falls asleep as soon as he (or she) has reduced his/her respiratory rhythm to that characteristic of the state of sleep. While sleep is, of course, very refreshing, the suggestopedic system was never intended to resemble sleep-learning and the students in the original suggestopedic language classes, therefore, were trained to breathe deeply and in the proper rhythm while remaining awake and alert.

Books on yoga insist that breathing should be performed according to a precise rhythm if the proper state of meditation (or concentration) and relaxation is to be achieved. Rhythmic breathing is often given in a ratio of 1:4:2 for the three processes of inhalation, retention and exhalation respectively; some experts on yoga, however, such as Eliade, indicate that the three “moments” of breathing should be equal (Eliade, 1969, p. 58). In any event, there should be a mathematical proportion between the three moments of breathing and there should be no pause between breaths. Since timing and rhythm are intimately connected, the counts of the mystic (or perfect) syllable OM (or AUM) are used in yoga to measure the relative duration of the “in” and “out” breathings. As the novice becomes more adept, s/he may, for example, breathe in for 4 AUM’s, hold for 16 AUM’s and breathe out for 8 AUM’s. The holding of the breath should not be lengthened too quickly for fear of injury to the lungs. Increased breath retention should be performed under proper supervision.

Slow, rhythmic breathing brings the mind under control and keeps it that way. It is well known to adepts in yoga that, as previously mentioned, if the mind is afflicted with sorrow or anger, the breath becomes irregular and broken—the exact opposite of the slow, smooth flow of the breath when the mind is calm. When there is calm concentration, the breathing becomes very slow; inversely, regulation of breath leads to alertness and clarity of mind. *Āsana* (comfortable posture) + breathing (deep, rhythmic) = relaxation and concentration.

Concentration is greatly promoted, then, by slow, rhythmic breathing and, most especially, by the retention or suspension of breath (Eliade, 1969, p. 68). The holding of the breath must, of course, be done easily and without any feeling of discomfort. Suspension of the breath has been much practiced throughout the centuries by saints and ascetics; during the period of breath-retention, for example, the medieval monks recited prayers and the ancient yogis chanted special

mantras or mystic syllables. When the breathing rhythm is slowed down and the breath is suspended, psychic activity is stabilized and attention may be fixed on a single point, object, idea or theme. Yogic concentration is said to be of two kinds: outward and inward—with open or closed eyes. Outward concentration is on an external object, picture, image or symbol. Inward concentration is on the inner world within one's mind.<sup>4</sup> Just as the slow, rhythmic breathing of yoga was used in the original suggestopedic session so, too, were the two forms of yoga concentration. Outward concentration was used during the first, or "active" part of the "session"; inward concentration was an integral part of the second, or "passive" session.

Another important feature of the original suggestopedic session was that the teacher was trained to breathe in the same rhythmic pattern as the students. For the projection of "telepathic" thought or images, the sender must be in the same state of relaxed concentration as the recipients (Ostrander and Schroeder, 1974, p. 153). According to yoga, rhythmic breathing, especially that of the group, enhances telepathy. If breathing is harmonized with the pulse of the body, it is said that the whole body catches the vibration and harmonizes with the will. "By unifying the vibrations of the body, a person can more easily impress his/her thoughts on others and attract thoughts of others keyed in the same vibration" (Ostrander and Schroeder, 1974, p. 157).

In the original suggestopedic language class, the relaxation techniques adapted from Hatha (or physical) yoga (posture, breathing) were designed to aid mental concentration (as in Raja, or royal, yoga). Although the techniques used in the original suggestopedic language class are similar to those that Dr. J. H. Schultz used in his autogenic training, yoga emphasizes self-control and good health in contrast to the therapeutic aspect of autogenic training. Hatha yoga stresses control of the body while Raja yoga realizes control of the mind. Although mental and physical stress was alleviated during the original suggestopedic session, the students' powers of concentration were considerably increased and they were able to "absorb" large amounts of language material in the classroom, without having to do any conscious memorization at home.

As mentioned in Chapter 1, scientific studies conducted by the staff of the Institute of Suggestology in the late 1960s and early 1970s just before, during and after the session showed that the EEG records of students manifested a distinct increase in "alpha activity" (and a decrease in "beta activity") as a result of the relaxation and rest, especially during the original "concert" (Lozanov, 1978, pp. 236–237). This "alpha activity" is similar, but not necessarily equal to the

prominent alpha activity registered by yogis during meditation. The alpha activity is generally linked with a relaxed state, on the one hand, and extraordinary feats of concentration or psychic powers, on the other (Tart, 1972).

## NOTES

1. Yet another medical doctor, Herbert Benson, has developed a similar method, called the Relaxation Response, to relieve stress and tension and to improve general well-being. The four basic components of this method (which are similar to yoga) are: (a) a quiet environment; (b) a mental device (such as a sound, word, phrase or object); (c) a passive attitude; (d) a comfortable position or posture. As in yoga meditation, eyes are closed, all muscles are relaxed and the patient (or client) must breathe through the nose and become aware of his/her breathing. The process is continued for 10–20 minutes once or twice daily. While there is no evidence that Lozanov was aware of Benson's work at Harvard, it is interesting to examine the similarities between Suggestology as a psychotherapeutical system and the Relaxation Response. (See: Benson, 1975).
2. As reported by subjects, training in contemplative meditation leads to the building of "intrapsychic barriers" against distracting stimuli (Diekman, 1972, p. 216).
3. Inhalation is composed of the following three interconnected phases:
  1. By moving the diaphragm, we slowly push the abdomen outwards. Merely expanding the abdomen has caused air to flow into the lower part of the lungs.
  2. In the second phase of this breathing, we spread our lower ribs and the middle part of our thorax, so that little by little the air streams into our middle lungs—hence the term "middle breathing."
  3. The third rhythm in the inhalation is the full arching-out of the chest. With this motion we draw in as much air as we can get into our expanded lungs. In this last phase, we draw in our abdomen so that it can act as a support for the lungs and, at the same time, so that the upper lobes of the lungs can fill up with air. The last rhythm is thus a completed "upper breath." There should be no interruption or break in this glide from one movement to the next. Indeed, seen from the side of the body, the "correct" yoga breath appears to be a single, slow, wavelike movement from the abdomen upward. When exhaling, the air is let out in the same sequence in which it was admitted (Yesudian and Haich, 1953, pp. 53–54).
4. See: Daniélou, 1955, pp. 88–89. Schultz' Autogenic Therapy also distinguishes between active concentration (attention, goal-directed efforts) and passive concentration (or functional passivity).



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## CHAPTER 5

# Musical Notations

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### MUSIC THERAPY

Music therapy, the use of music for therapeutic or pedagogical purposes, has a long history, going back to ancient Egypt, the Bible and the Greeks (E. Feder and B. Feder, 1981, chap. 1). In “modern” times, scientific research methods have been applied to what the ancients knew intuitively: music has measurable physiological effects on the body and produces psychological effects on mood and personality. Listening to music produces changes in blood flow and blood pressure, changes in posture, respiratory rate, pulse rate and general activity. Listening to music also produces measurable mood changes; for example, listening to and playing music have been shown to be effective antidepressant measures.

Music therapy has been defined as the controlled use of music in the treatment, rehabilitation, education and training of adults and children suffering from physical, mental and emotional disorders. However, since music is a social art, it can help individuals establish or reestablish interpersonal relationships and social involvements (music “draws out” autistic children, for example); it can help individuals develop self-esteem through self-actualization (i.e., the acquisition of skills); the rhythmic structure of music can energize and bring order, especially in work with individuals suffering from mental and physical disabilities (Gaston, 1968, pp. v–vii).

Music therapy is also used for group, couple or individual therapy (especially in Europe); it is used in the dentist’s chair and in hospitals to relieve the fear and anxiety of patients; it is used in helping patients

deal with pain and as a preparation for "painless" childbirth. It is used on the psychiatrist's couch and in the treatment of such illnesses as insomnia and alcoholism. Music therapy is used in combination with relaxation techniques and visualization exercises, with Sophrology and the special voice quality in Sophrology (*Terpnos Logos*) and with Autogenic training. In Eastern Europe, where drug use is not as widespread, and/or where drugs are not as readily available as in the West, music is used in rest homes to regulate heart rhythm as well as for other purposes of a "medical" nature.

Whether considered as a social art or a means to self-development, music and music therapy can take two forms: passively listening to music (audition) or actively engaging in a group that is making music (participation). Active methods obviously comprise playing an instrument but also include rhythmic games and physical activity to music. (As opposed to learning to play a musical instrument, "instant music" or "collective improvisation" requires no specific musical ability or training; patients play randomly on "pre-band" instruments and music is used as a means of spontaneous communication). Passive methods involve listening to live or recorded music, often in combination with relaxation techniques and normally followed by group discussion. Very often the aim here is relief from psychological stress and/or the realization of emotional control. In Europe, research has been conducted to find out which forms of music are best suited for relaxation and concentration, or focussing (Guilhot *et al.*, 1979, p. 55). For example, romantic music of the nineteenth century does not seem particularly appropriate for relaxation; it tends to arouse personal associations and to create tension. Baroque music, on the other hand, is structured and reassuring. Rock music is totally unsuitable for either relaxation or concentration. Popular music of the 1950s is good for relaxation but not for concentration (too much melody); music with words is too distracting. As American researchers have found, background music can be distracting but it can also be used to facilitate learning, to improve task performance and to increase verbal interaction (Peters, 1987, p. 54).

Insofar as background music is concerned, there are a number of important elements to be considered: rhythm, melody, harmony, instrumentation. While the effects of rhythm can generally be measured objectively, melody and harmony tend to be evaluated more subjectively. Researchers in France, however, have evaluated the effects of all these elements on music therapy patients.

Rhythm has been shown to have either a stimulating or depressing influence on the rhythmic systems of the body: blood circulation, breathing, heart rate. The physical or physiological response to music is created by rhythm; however, this fundamental element of music also touches the emotions (Feder and Feder, 1981, pp. 113 ff; Gaston, 1968, pp. 17 ff). Babies put into nurseries where a heart beat sounds over the loudspeaker system have been found to sleep longer and grow faster than babies in a silent nursery. Rhythmic drumming has been used to send warriors raging into battle or to put dancers into a state of ecstasy. March music is energizing. A lively rhythm is useful for breaking tension and dance rhythms generally have a liberating impact. (Rock music, however, fatigues the nervous system). The subtle rhythms of classical Indian ragas played on the sitar appeal to the intellect and have a soothing effect. The lullaby sung by the mother has an especially reassuring quality. The relationship between music rhythm and the natural rhythms and responses of the body makes music a logical ordering instrument for certain kinds of problems, especially those in which coordination needs improvement.

It is commonly noted that the musical time unit in almost all cultures appears to be a standard that is roughly equal to the human heartbeat (i.e., between 70 and 80 beats a minute, the *moderato* tempo in Western classical music). In Indian philosophy a beat of 60 to the minute is considered to be the ideal beat for meditation. Possibly it is the 1:4 ratio of breathing to heart rate that makes quadruple time (i.e., 4/4) the most useful for a steadying effect. Triple, quintuple and septuple times, on the other hand, promote a feeling of restless energy.

In music therapy it has been found that a rhythm of 60 to 80 beats a minute produces a feeling of serenity; a beat of 100 to 150 is invigorating and joyful. Slowing down the tempo leads to calm and tranquillity and relaxation music has a rhythm of about 60 beats (or fewer) to the minute. (In addition to a slow, regular rhythm, relaxation music should have even dynamics and no dissonance). In France, a group music therapy session (which involves relaxation techniques and postures as well as rhythmic breathing) has the following phases (after an opening of "tension-discharging" music and verbal discussion): (a) "countdown"—music with a moderate beat of 60 to 80; (b) relaxation music with a beat of 60 or less; (c) "coming out"—a fast or *allegro* movement of more than 100 beats a minute (Lecourt, 1980, p. 82).

Harmony has been called the "heart of music." Simple harmonies and even dynamics are characteristic of music (such as that of the

baroque era, 1700–1750) that tends to reduce physical activity and to enhance contemplation. Dissonant or complex harmonies and abrupt dynamic changes (especially from soft to loud) tend to increase or stimulate physical activity and to reduce mental activity. The proportionally spaced harmonies of the major common chords soothe and strengthen while the minor chords cause sorrow and yearning. Consonance is said to represent order, equilibrium and tranquillity, while dissonance (i.e., sounds that clash) produces worry, torment and agitation. Major modes create happiness and lightness while minor modes provoke melancholy. The harmonies of music of the baroque and classical periods are described as consonant and reassuring and those of the romantic period as complex and/or engulfing. Contemporary classical music, which tends to be very dissonant, evokes anguish and chaos.

Melody is said to convey the real meaning of music. On the one hand, melody appeals to the emotions: an ascending movement, for example, evokes joy, gaiety and/or serenity while a descending movement creates a feeling of dignity and solemnity. Melody also appeals to the intellect; the flow of the notes passing in time must be held in the mind if it is to follow the melodic pattern. Tension and relaxation of pitch in melody also have an effect on the physical body of singer, player and listener. The melodies of contemporary classical music are characterized as intellectual and those of the romantic period (nineteenth century) as sentimental. Baroque melodies are sustained and structured.

In addition to such considerations as rhythm, harmony and melody, the choice of musical instruments also plays an important role in music therapy. The flute, for example, has a pastoral quality; the organ is associated with religion; the accordion (at least in Europe) evokes a “popular” (or workers’) milieu. The xylophone calms the aggressive patient; the flute and harp open up the introverted. The cello is sonorous and expressive while the trumpet is stimulating and arousing. According to the research conducted by Dr. Alfred Tomatis and his associates, the violin (which is the instrument with the most high frequencies) is the most soothing of all the instruments (Tomatis, 1972; Madaule, 1973).

Elements of active and passive methods in music therapy have been incorporated into a number of learning systems, in particular (and as we shall see), the Suzuki Approach, the Tomatis Method and Suggestopedia. These three methods differ in their utilization of “music therapy,” but all feature music making, on the one hand, and listening to music, on the other.

In Suggestopedia, music making took (and still takes) the form of singing; foreign language songs were (and still are) frequently used in the suggestopedic language class. As in the Tomatis Method, singing in Suggestopedia serves as a memory-enhancing and linguistic structuring device (i.e., songs are an effective technique for memorizing language materials). It is the original suggestopedic session, however, which illustrates to what extent elements of passive methods in music therapy can be effectively incorporated into a learning system.

As already noted, the original concert session (or passive part of the session) was divided into three parts: (a) a two-minute introduction which served as a "countdown" (the opening Sarabande from Bach's *Goldberg Variations* played on the harpsichord with a metronome speed of 70 to 80, the beat of the normal human pulse); (b) a series of slow movements from baroque *concerti grossi* for stringed instruments, lasting some 20 minutes, over which the teacher acted out the lesson dialogue with an emotional or artistic intonation and during which the students, with eyes closed, meditated on, or visualized the text; (c) an *allegro* flute excerpt in a major key from Telemann, lasting some two minutes, which brought the students out of their deeply relaxed state. For the concert part of the special session, the students originally adopted a posture of relaxation (the alternate Savasana posture) and engaged in deep and rhythmic breathing to a count of eight that accorded with the teacher's reading of the language dialogue and with the beat of the baroque slow movements in the background.

The original suggestopedic concert session thus combined visualization and relaxation with a three-part session in music therapy: (a) "countdown" (music with a moderate beat); (b) relaxation (music with a slow-moving beat); (c) "coming out" (music with a fast rhythm). The slow movements used in part two of the original concert, excerpted from the chamber music of Bach, Corelli, Handel, Telemann and Vivaldi, have, by definition, a rhythm of 60 beats to the minute, the ideal beat for meditation and relaxation. A sustained melody in the string section and a steady bass accompaniment are other important features of baroque slow movements selected for the original "concert."

As in music therapy, instruments were carefully chosen for the original suggestopedic concert session. The harpsichord (used in part one) is considered an ideal instrument for inducing a state of relaxation because of its even dynamics. The violin, long considered the instrument closest to the human voice, is also the most soothing of the instruments because of its high frequencies and stringed instruments, violins in particular, were used to provide background music for the reading of

the lesson dialogue. The flute (used in part three of the "concert") has a pastoral quality but is also more stimulating than the violin.

The original suggestopedic language class was probably not conceived as the result of research into music therapy (although it would certainly have been known that music was used in rest homes for "therapeutic" purposes). It seems more likely that the creators of the first version of Suggestopedia (and especially Aleko Novakov) intuitively understood that listening to baroque music provides relief from psychological stress and lifts the mind to a higher philosophical plane. They also realized that background music, if properly chosen, can be used to promote absorption of materials in the classroom.

## BAROQUE MUSIC

For the "concert" part of the original suggestopedic session, musical excerpts were chosen from eighteenth century baroque instrumental music (*concerti, concerti grossi*) according to what the members of the Institute of Suggestology called "suggestopedic" criteria. Rhythm, melody (or emotional tone) and instruments were considered from the vantage point of Suggestopedia: certain rhythms, certain melodies, certain instruments were found to contribute to a state of relaxation and meditation and hence to an increase of alpha waves in the brain. Let us now consider the principal characteristics of baroque instrumental music (1700–1750) which made it appropriate for use in the final part of the original suggestopedic language class.

### 1. Structure and Symmetry

Baroque composers tended to unify a movement (or work) by employing the same themes, patterns and figuration throughout. They showed a predilection for Binary form (as opposed to the Ternary, or tripartite form of the classical period) because the somewhat rigid and formal shape of two-part form fitted in well with the ideas of an age devoted to reason and clarity of expression.<sup>1</sup>

Baroque practice favors the clear, unequivocal statement of the main key (or tonic) at the beginning of a composition and the use of a well-defined key throughout a given movement.<sup>2</sup> With regard to the choice of key for the various movements of a concerto or symphony, the first and last of these are in the tonic key, as a matter of course, although the mode (major or minor) may vary; the slow movement is usually in a key that is in some close relationship to the tonic. Chords,

rather than freely counterposed melodic lines, determine harmonic motion. The tonic and dominant chords are all important, as are strongly defined cadences, because these emphasize the main key. The period 1700–1750 did not favor the harmonic experimentation of the nineteenth century (especially the Romantic period) or even that of the early baroque period of Monteverdi (1567–1643). Harmonic progression tended to be standardized during the later baroque era with progression by fourths or fifths predominant over a ground or figured bass. Dissonance was used, but in a uniform way and only as a kind of balance to the general consonance that prevailed in melody. Rhythm was generally subjected to rigid metrical control with one tempo, fast or slow, per movement.<sup>3</sup>

The baroque era believed in the power of music to influence or move the human soul but in contrast, say, to the passionate sweep of Romantic music, the appeal of eighteenth century music was largely directed to reason: the “affections” or “passions” in the sense of the spiritual movement of the mind.<sup>4</sup> It was largely in order to follow the “Doctrine of the Affections” that most baroque compositions used only one main thematic idea throughout (one theme = one affection), although variations on a theme were widely used. The baroque faith in music’s power, indeed its obligation, to move the “affections” (in the sense of liberating the mind from earthly concerns) is also typical of the “sacred” forms of Indian music,<sup>5</sup> although, of course, Indian and Western music belong to different musical systems and traditions. As was mentioned in Chapter 2, such characteristics of baroque compositions as unified tonal and rhythmic schemes and the use of one basic melody or theme to correspond to one “affection” lead to possible analogies with the *raga* in Indian music with its unity of emotion and mood (Daniélou, 1969, p. 91; Guilhot *et al.*, 1979, p. 29). It is entirely possible that, by using baroque music in the original suggestopedic language class, the staff members of the Institute of Suggestology were trying to create the same conditions for “meditation” as Indian music did (and still does) for the yogi.

## 2. Love of Contrast

The baroque era favored contrast, as well as symmetry. Elements of contrast include the following:

- (i) contrasting largeness of sound. *Piano* (soft) and *forte* (loud) were used to indicate dynamics during this period in a manner similar

to the use of light and shadow in baroque painting. "Terraced dynamics" or sudden changes from one dynamic level to another without *crescendo* or *decrescendo* were also characteristic of baroque music. Often, however, only one dynamic level was indicated for an entire movement. The preceding (or following) movement would be in the opposing dynamic level. (An analogy could be made here to the use of contrasting intonations during the original "active" session).

- (ii) contrasting sounds of different instruments. In the *concerti grossi* of the period, bright versus dark sounds resulted from the tones of the woodwinds or high trumpet as opposed to the rich homogeneous sounds of the strings. (As we have seen, the original "passive" session favored the sounds of contrasting instruments).
- (iii) contrast in "affections" and hence in movements. Although the *concerto grosso* and symphony of the baroque era contained three movements (fast/slow/fast, following the Italian overture or slow/fast/slow, following the French overture), there were two main tempi or moods, alternating with one another. The *allegro (gai)* mood or tempo was characterized by disjunct motion and staccato or semi-staccato articulation, short notes (clearly separated or disconnected one from the other), clarity of attack, diatonic scale materials.<sup>6</sup> The *adagio (lent)* movement or tempo with its expressive, lyrical mood was characterized by conjunct motion, primarily legato articulation, sustained tone, long notes and chromatic scale materials. (As we have seen, the language materials during the original "passive" or "concert" session were read against a background of baroque slow movements because of their inherent qualities. Fast movements, which were used to end the original session, were played only after the reading of the language dialogues had been completed).

### 3. Use of the Basso Continuo and Emphasis on the Melodic Line

Another element of baroque contrast is the treble/bass polarity produced by the use of a *basso continuo* (bass accompaniment) in opposition to the "soprano" line expressing the melody. This contrast between the upper and lower parts of the music had its origins in medieval and Renaissance solo songs with lute accompaniment and, most especially, in early seventeenth century Italian monody (derived from the Greek and meaning "singing alone") for solo voice and

continuo. The soprano voice—whether male or female—was the ideal. While the melodic line, sung by a “high” voice, imitated the passions or the “affections,” the slowly moving sustained bass tones of the accompaniment provided harmony and rhythmic balance.

In the later baroque period, the voice in “monody” tended to be replaced by the violin, considered to be the instrumental counterpart of the human voice; in the instrumental music of the period, the violin emulated the voice in its technique of clear, delineated tone production and also in its expression of the moods or “affections” (Guilhot *et al.*, 1979, p. 36; see also: Lehmann, 1973, p. 266). The continuo, which provided the bass accompaniment and which was part of all baroque chamber ensembles and orchestral combinations, consisted of one keyboard instrument, such as the harpsichord, plus one or more bass instruments, such as the cello, viola da gamba, string bass or bassoon. As in singing-with-accompaniment, the two linear elements of instrumental monody had two different functions: the primary declamatory or melodic elements resided in the top line, while the harmonic and structural elements, along with a vital balance to the soprano part, resided in the continuously present and constant bass (hence the name: *basso continuo* or, in English, “thorough-bass” or “ground bass”).

#### 4. Meter and Rhythm

The seventeenth and eighteenth centuries witnessed the development of “modern” (as opposed to medieval or Renaissance) ideas concerning meter, time signatures, tempi. Meter became a combination of beats into groups of twos, threes and fours; these beats were grouped into a regular pattern of measures or bars by giving accents (“metric accents”) to the first beat of each group. These metric groupings of beats, with the first beat accented, were separated from each other by bar lines. The metrical scheme of each composition (or movement) was indicated by its time signature (for example, 4/4, 2/2, 3/4), with the upper figure of the time signature indicating the number of beats in each bar. The lower figure indicated the value or length of the note or beat: half note = 2; quarter note = 4; and so on. The most common metric groupings were those of two beats (duple time or duple meter), three beats (triple meter) or four beats (quadruple time). The speed or frequency with which the musical beats occurred was referred to as the tempo of the piece and was indicated both by the time signature (or, more precisely, by the lower figure of the time signature) and by such verbal designations as *allegro* (fast) and *adagio* (slow).

In baroque music, the rhythmic movement or pulsation of the measure (or series of measures) was generally maintained by some figure of accompaniment in the bass. The most noticeable aspect of the rhythmic quality of music during the period is the repetition of rhythmic patterns; the continuity of flow during the slow movements; the emphasis placed upon the metric pulse in the rapid movements. In baroque music, one meter (duple, triple, quadruple) or one time signature is used throughout a movement just as one tempo (fast/slow) is sustained throughout a movement. (It is, therefore, relatively easy to "block out" language materials over baroque music for presentation purposes in the classroom).

Insofar as the order of movements was concerned, it was the Italian (as opposed to the French) overture, detached from opera, that was to furnish the model for the baroque symphony or concerto: fast introductory movement; slow, expressive interlude; final quick movement. (The four-movement, or truly "modern" form of the symphony, became normal after c. 1765). The first movement, *allegro*, had an animated and stimulating character in order, no doubt, to summon the attention of the audience; the contrasting slow movement (the slow tempo precludes any considerable length) was of a lyrical nature, expressive and melodious; the final movement was in fast time. According to the modern metronome, slow tempos have 60 (or fewer) beats per minute (the slow tempo in Indian music, *vilambita*, has approximately the same speed; each beat is said to last about one second); moderate tempos have from 60 to 80 beats per minute; fast tempos contain more than 80 beats per minute. In the original suggestopedic language class, as we have seen, baroque slow movements were used as background for the reading of the language material; the "concert" session opened with a moderato introduction (MM 70-80) and closed with an *allegro* movement.

## NOTES

1. As in the two parts of the original suggestopedic session, the two divisions of a Binary movement imply: (a) Statement, (b) Response. In simple Binary form, the statement is in the tonic key, modulating to the dominant; the response is in the tonic key throughout or in the dominant key modulating to the tonic. In more developed Binary movements, typical of the majority of those occurring in the suites, for example, of Bach, Handel *et al.*, we find the following: (A) Opening matter in tonic, modulating to dominant, in which key this part would conclude with some

well-marked cadence bars. (B) Opening matter of (A) reproduced to some extent, starting from the dominant key; the music passes eventually—after a certain amount of modulation—to the tonic key, with a reproduction of cadence-bars of (A), now transposed into the tonic (Macpherson, 1930, pp. 249–250).

2. See Indian music which, like all truly modal music, is built on the independent relationship of each note to the tonic (Daniélou, 1969, p. 23).
3. According to books on music therapy, well-defined and structured melodic and rhythmic elements in a musical composition provoke more obvious physiological reactions in the subject—especially reactions of calmness and serenity. (See: Guilhot *et al.*, 1979, p. 28, p. 39).
4. In *Suggestology and outlines of Suggestopedya* (p. 270), Lozanov refers to baroque music as “classical music of a more philosophical nature.”
5. See, for example, *Gandharva* (sacred or celestial music) in Daniélou (1969, p. 87).
6. Diatonic scale materials are notes forming part of the ordinary scale of the mode or key as opposed to the chromatic scale where notes foreign to the mode or key are produced by the use of accidentals: sharps and flats.



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## CHAPTER 6

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# Pygmalion in the Classroom

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Although there is no evidence whatsoever to indicate that Suggestopedia was influenced by Robert Rosenthal and his work on Pygmalion in the classroom, the ideas of Lozanov and Rosenthal regarding the role and impact of the teacher in the classroom are remarkably similar and were developed and advanced at about the same time, viz. the late 1960s. Indeed, when I presented a paper on Rosenthal's experiments at the First International Symposium on the Problems of Suggestology in Varna, Bulgaria in June 1971 (Bancroft, 1973), I received an enthusiastic response from members of the (then) Soviet and East German delegations as well as from members of the Institute of Suggestology. The enthusiasm had to do, in my opinion, with the recognition that Rosenthal had done work similar to that of suggestopedic researchers.

In the book which he co-authored with Lenore Jacobson, *Pygmalion in the Classroom*, Rosenthal (1968) gives a statistical basis to the message contained in George Bernard Shaw's *Pygmalion*, viz. that Pygmalion transforms the pupil and then is influenced in turn. The central idea of Rosenthal's book is similar to Lozanov's concepts of authority and infantilization in *Suggestologia*: the teacher must be competent, on the one hand, and, on the other, be able to project a warm, sympathetic personality in the classroom so that the student (or pupil) feels at ease and has confidence in his (or her) abilities.

According to Rosenthal, people do what is expected of them; one person's expectations of another's behavior may come to serve as a self-fulfilling prophecy. (In the same manner, self-expectancy has an influence on one's behavior; those who fear failure often fail; those

who expect success, usually succeed). The rise and fall of economic institutions such as banks and the stock market has been attributed to the operation of expectation. In a 1950 essay, "The Role of Expectancy," Gordon Allport presented the argument that nations that expect to go to war, do so; those that expect to remain at peace avoid international conflicts. In medicine, too, the self-fulfilling prophecy may have either positive or negative consequences. In psychotherapy, the therapist's own belief about the patient's prognosis is a determinant of that prognosis; the mentally ill who are regarded as curable are often cured. Insofar as physical illness is concerned, new drugs are often more effective in the initial stages of their career as the doctor has few doubts about their efficacy; the doctor's enthusiastic voice and confidence in what he (or she) is prescribing is communicated to the patient so that the drug exerts an additional "placebo" effect. Behavioral scientists also have some expectation or prophecy about the results of their experiments. Far from being an impersonal observer, the interviewer uses auditory and visual cues to communicate his/her expectancy to the respondent or interviewee who replies as prophesied. The more personable and relaxed the interviewer, the more the results correspond to what was expected. (The subjects in scientific experiments are also influenced by interviewers who are regarded as extremely competent and of higher status; Lozanov found that students perform better in educational institutions considered as prestigious). The scientist or experimenter, in effect, "teaches" the subject the desired response. Researchers tend to obtain the data they expect to obtain.

In pure scientific research, Rosenthal found that those animals who were believed to be better performers became better performers. When experimenters were led to believe that their animal subjects were more favorably endowed genetically, their animals' performance was superior. Rats did far better in tests when experimenters were told (falsely) that the rats had been specially bred for intelligence. Those experimenters who believed their animals to be "Skinner-box bright" handled them relatively more often than did experimenters believing their animals to be dull. This more careful observation of the "intelligent" rat's "Skinner-box" behavior led to the more rapid and appropriate reinforcement of the desired response. When experimenters were led to believe that their animal subjects were genetically inferior, these animals performed poorly. In reality, of course, there were no genetic differences between the animals that had been alleged to be dull or bright. Animals expected to perform well, do so; animals expected to perform incompetently tend to perform as prophesied.

In Rosenthal's book, *Pygmalion in the Classroom*, two of the three sections are devoted to teaching and teacher expectation. Rosenthal found that the subject's performance of an intellectual task was determined intentionally (or unintentionally) by the prophecy of the teacher or examiner. When teachers have a low opinion of the children's learning ability, the children seldom exceed those expectations (the so-called "halo" effect: when certain things are known and believed about someone, other things are implied). The dull child is often further disadvantaged by his (or her) teacher's setting standards that are inappropriately low. (Wilson [1963] found that teachers hold up lower standards for lower class children than for children from the "better part of town"). Sometimes the teacher recognizes disadvantages, sometimes he or she creates them. The lower class child may be even further underestimated by the results of standardized tests; he or she is then labelled as an underachiever and, once placed in the slow track, tends to stay there. On the other hand, when teachers expect that children will show greater intellectual development, those children *do* show greater intellectual development. By what he/she says, the manner in which s/he says it; by his (or her) facial expressions, gestures and tone of voice; by auditory and visual stimuli; the teacher communicates to the pupils an expectation of improved intellectual performance. More competent work is obtained (according to Rosenthal's and Lozanov's findings) by teachers and examiners with "warmer" personalities. When children are expected to gain intellectually and are given more attention by the teacher, they perform better and are then more likely to be evaluated against a higher standard. Teachers may not only get more when they expect more, they may also come to expect more when they get more.

Rosenthal's experiments in teacher expectation that form the basis of his *Pygmalion in the Classroom* were conducted with school children in the 1960s in a San Francisco elementary school (Spruce School or, in the book, "Oak School"). A random sample of children predicted to make dramatic gains in school work actually made those gains, while the rest of the student body did not. Only the teachers (and not the pupils or parents) were given the predictions. Although, for ethical reasons, no child was predicted to be dull, Rosenthal's tests, conducted in the 1960s, provided important empirical evidence for the common belief that many children, particularly minority group children, turn out dull because their teachers expect them to be dull.

About a sixth of the 650 students in the San Francisco school were Mexican children, the only minority group enrolled. Mexicans were

over-represented in the slow track of the school's three-track system and under-represented in the fast track. In the spring of 1964, with principal Lenore Jacobson's permission, Rosenthal administered an IQ test to all pupils in the kindergarten and the first five grades of "Oak School." Teachers were falsely told that the test would show which pupils were due to spurt ahead academically. They were given the names of 20 per cent of the student body, randomly selected from all grades and all three tracks ("fast," "medium" and "slow"), and were told that every pupil listed would improve dramatically within a year. The difference between the special and the ordinary child was thus in the mind of the teacher.

A year later, when all the children still in school were retested, the "spurters" showed an average IQ gain of 12.22 points, compared with 8.42 for a control group representing the rest of the student body. The dramatic gains came in grades 1 and 2—increases of 27.4 in grade 1 and 16.5 in grade 2. Seventy-nine per cent of the spurters and 49 per cent of the control group showed absolute gains of 10 or more IQ points in the first two grades. According to Rosenthal (and J. P. Scott in a 1962 article, "Critical Periods in Behavioral Development"), the large gains in the early grades can be attributed to the fact that young children are more malleable than older ones and more sensitive to teacher expectations. Not only are younger children easier to change than older ones; younger children have less well-established reputations within a given school. A teacher may "know" an older child much better by reputation and be less inclined to believe him or her capable of intellectual growth simply on someone else's say-so.

The pupils of Mexican descent were found to gain more by favorable expectations than the other children and, in particular, the Mexican boys showed the greatest advantage of having been expected to grow intellectually. Among the spurters, Mexican boys (but not girls) whose faces looked somewhat more "Mexican" showed higher IQ gains than those with more "Anglo-Saxon" faces. According to Rosenthal, there is no clear explanation for these findings, but one can speculate that the teachers' pre-experimental expectancies of the more Mexican-looking boys' intellectual performance were probably lowest of all. These children probably had the most to gain by the introduction of a more favorable expectation into the minds of their teachers.

In addition to the comparison of the "special" and the ordinary children on their gains in IQ, it was possible to compare their gains after the first year of the experiment on school achievement, as defined by report-card grades. Only for the school subject of reading was there

a significant difference in gains in report-card grades. The children expected to bloom intellectually were judged by their teachers to show greater advances in reading ability. Just as in the case of IQ gains, it was the younger children who showed the greater expectancy advantage in reading scores. The more a given grade-level had benefited in over-all IQ gains, the more that same grade level benefited in reading scores. It was the children of the medium track who showed the greatest expectancy advantage in terms of reading ability, just as they had been the children to benefit most in terms of IQ from their teachers' favorable expectations.

At the end of the school year of 1965–66 (or about 20–24 months after the start of the program), the children of “Oak School” were tested for a final time. This follow-up testing was carried out to see whether any advantages of favorable teacher expectations could last two years, especially after the second year had been spent in a classroom whose teacher had not been told which of the children were “special.” Rosenthal found that after two years the overall magnitude of expectancy advantage had increased slightly over what it had been after only one semester but decreased slightly over what it had been after one year; middle track children, however, benefited most after the second year.

Teacher expectations are a powerful determinant, not only for the “special” pupils but also for the other class members, including the teacher. Rosenthal found that the greater the gain made by children of whom gain was expected, the greater the gain made in the same classroom by children from whom no special gain was expected. Perhaps, as in the Shaw play, the pupils transformed Pygmalion. Teachers may have treated all their children in a more pleasant, friendly and encouraging fashion and watched all their children more attentively as a result of the “special” pupils.

Rosenthal's research on the psychology of unintentional influence relates to Lozanov's Suggestopedia in a number of ways. In the suggestopedic classroom, the teacher must have high expectations for his/her students (i.e., believe that all students can learn more than has traditionally been believed possible) and communicate these expectations both directly (i.e., verbally) and indirectly (i.e., nonverbally). To overcome the *unintentional* communication of interpersonal expectations, the teacher must be aware (or made aware), not only of the importance of what s/he says but also of the impact on the students of his/her body language, facial expressions and tone of voice. The self-fulfilling prophecy can be related to the effects of suggestive

processes; students become more talented if they are treated as talented. Lozanov goes further than Rosenthal by saying that the teacher must be trained in the art of verbal and nonverbal suggestion and, like a trained actor, must become a veritable artist in his/her profession. Rosenthal found that the warmer personality gets the better results. According to Suggestopedia, the teacher must show care and concern for each individual student as well as for the group as a whole. Rosenthal found that younger children are more malleable and more open to suggestion(s) than older ones; according to Lozanov, everything possible must be done in the classroom to make the students recover the spontaneity and suggestibility they had in childhood. In the first version of Suggestopedia, in addition to role-playing, songs and games, special techniques of mental and physical relaxation adapted from yoga were used for the process of "infantilization"; in the second variant (as we shall see), while the yogic elements are largely removed, the infantilization process is realized through the integration into the classroom proceedings of the various arts.

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## CHAPTER 7

# Research in Nonverbal Communication

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The term “nonverbal” is commonly used to describe all events of human communication that transcend spoken or written words. According to Mark Knapp (1980, p. 21), nonverbal communication should not be studied as an isolated unit but as an inseparable part of the total communication process. Nonverbal communication may serve to repeat, contradict, substitute for, complement (or elaborate on), accent (or emphasize) or regulate verbal communication. However, nonverbal communication is important because of the role it plays in the total communication system, the tremendous quantity of information cues it gives in any particular situation and because of its use in such fundamental areas of our daily life as politics, medicine, the arts, advertising, television (“the medium is the message”), education, job interviews, courtship. It has been said, for example, that when we receive contradictory messages on the verbal and nonverbal levels, we are more likely to trust and believe in the nonverbal message. It is assumed that nonverbal signals are more spontaneous, harder to fake and less apt to be manipulated. (It has also been speculated that those who prefer nonverbal cues over verbal ones show a right-brain dominance). Estimates have it that, in a normal two-person conversation, the verbal components carry less than 35 per cent of the social meaning of the situation; more than 65 per cent of the social meaning is carried on the nonverbal level.

Learning has a cognitive domain, an affective domain and a psychomotor domain. The cognitive domain of learning deals with the

attainment of knowledge and the acquisition of intellectual and analytical abilities and skills. The affective domain is concerned with teaching effects which have some "emotional overtone": student likes and dislikes, attitudes, values, beliefs, appreciations and interests. (The third domain, the psychomotor domain, emphasizes muscular or motor skill and is mainly concerned with the student's ability to reproduce a neuromuscular coordination task). In most learning environments, attention is usually focused on the cognitive domain. The affective domain, centered around the creation of positive feelings, is, however, very important in the media age. The nonverbal as well as the verbal messages that teachers employ have an important effect on students' liking for the teacher, the subject matter and the discipline area.

As mentioned in the previous chapter, subtle nonverbal influences in the classroom can sometimes have dramatic results. According to Rosenthal (1968, p. 180), "by what she said, by how and when she said it, by her facial expressions, postures, and perhaps by her touch, the teacher may have communicated to the children of the experimental group that she expected improved intellectual performance." Expectations can be transmitted nonverbally. According to Neill (1991, p. 79; p. 87), enthusiastic instructors use more marked nonverbal signals, such as gestures and range of intonation, than would be normal in informal social interaction. (They also tend to give much more intense listening signals). P. Andersen and J. Andersen (1982) found that half of the variation in student liking for teachers was associated with the kind of nonverbal communication the teachers employed. Teachers who use positive gestures, eye contact and smiles produce interpersonal closeness, reduce psychological distance and have a positive impact on student performance.<sup>1</sup>

Most research on the subject of nonverbal communication dates from the 1960s and 1970s; however, there are some important predecessors in this area. Darwin's *The Expression of Emotion in Man and Animals* (1872) has been highly influential in the modern study of facial expressions; Kretschmer's *Physique and Character* (1925) and Sheldon's *The Variations of Human Physique* (1940) laid the foundation for work on body types; Efron's *Gesture and Environment* (1941) introduced innovative ways of studying body language, set forth the important role of culture in shaping many of our gestures and constructed a framework for classifying nonverbal behaviors which influences researchers today. Anthropologists Ray Birdwhistell (*Introduction to Kinesics* [1952]) and Edward Hall (*The Silent Language*

[1959]) founded research programs in kinesics and proxemics, respectively. Psychiatrist Jurgen Ruesch and photographer Weldon Kees authored the first book to use the term nonverbal communication in its title in 1956 with *Nonverbal Communication: Notes on the Visual Perception of Human Relations*. The decades of the 1960s and 1970s witnessed important contributions from many scholars, including Mehrabian and Rosenthal, Sommer and Trager. In 1969 Ekman and Friesen presented an important theoretical framework for the origins, usage and coding of nonverbal behavior. The 1970s began with a journalist's account of nonverbal study (Fast with *Body Language*) and there soon followed a steady stream of books and magazine articles that attempted to make nonverbal findings understandable for a popular audience (Knapp, 1980, pp. iii–iv).

It is unlikely that Georgi Lozanov and his staff at the Institute of Suggestology in Sofia were influenced by Western (and, in particular, American) research in the area of nonverbal communication. However, it is interesting to note that, in the 1960s and early 1970s, Suggestology and Suggestopedia incorporated elements of yet another “modern” area of research. In his pronouncements on Suggestology and Suggestopedia, Lozanov has insisted, from the beginning, that double-planeness is an important factor in therapy as well as in education. Verbal and nonverbal cues should be harmonized. The teacher's (or therapist's) body language and tone(s) of voice are instrumental in the educational (or therapeutic) process as is the physical and social environment. The teacher (or therapist) should have the confidence and the artistic presentation skills of the trained actor. Attention should be paid to classroom design (wall colors, seating arrangements, windows, etc.) as it has a definite influence on student participation, performance and learning in the classroom. (So, too, does the “social environment” consisting of the staff of the educational institution).

According to Knapp (1980, pp. 4–11; p. 21), the theoretical writings and research on nonverbal communication can be divided into the following seven areas: (a) kinesics or body motion; (b) physical characteristics (including physique or body shape, general attractiveness, clothing);<sup>2</sup> (c) touching behavior or haptics (tactile communication is probably the most basic or primitive—as well as the most effective—form of communication);<sup>3</sup> (d) paralanguage (including voice qualities and vocalizations); (e) proxemics (the study of the use and perception of social and personal space); (f) artifacts (including the use of objects such as jewelry and cosmetics and other decorations that

may serve as nonverbal stimuli); (g) the environment or environmental factors within which the interaction occurs. An eighth category, oculusics, or the study of messages sent by the eyes, is another important area for nonverbal communication. The categories which have a bearing on Lozanov's Suggestopedia are: kinesics, paralanguage, proxemics and the environment, as well as oculusics. Appropriate aspects of these categories are discussed below.

## **KINESICS**

Kinesics is communication that occurs via body movement. Body motion, or kinesis behavior, typically includes gestures, posture, movements of the head and body, facial expressions (e.g., smiles), eye behavior (including direction and length of gaze). In 1969 in "The Repertoire of Nonverbal Behavior," Ekman and Friesen developed a system for classifying nonverbal behavioral acts. These categories include emblems, illustrators, affect displays, regulators and adaptors.

### **1. Emblems**

These are stylized nonverbal acts or signs that have a direct or specific verbal translation or dictionary definition, usually consisting of a word or two or a phrase. They are usually produced with the hands but they may also be produced by the face. Emblems are frequently used when verbal channels are blocked (or fail). There is general agreement among members of a culture or subculture on the verbal "translation" of these signals. (The gestures used to represent "A-OK" or "Peace" [also known as the victory] sign are examples of emblems for a large part of our culture). Culture-specific emblems appear to be learned very much the way language vocabulary is learned and they are usually performed with awareness and with an intent to communicate a specifiable message.

Because they originate within cultures, emblems may cause particular difficulties for the international traveler (and the foreign language student). The meaning the traveler has for a gesture may not be shared by the citizens of the host country. If one is to travel successfully and/or be truly competent in communication in a foreign language, one needs to learn the gestures (especially emblems) of the foreign country or culture (Wylie, 1977). Generally speaking, however, as Neill (1991, p. 69) points out, emblems are not much used in teaching. Nevertheless, they may pose a problem in language classes, for example, those classes

where English is being taught as a second language to students of various cultures whose emblematic gestures are very different from those used by the anglophone instructor (Neill, 1991, p. 134).

## **2. Illustrators**

These are nonverbal acts or signs that are intimately linked to spoken discourse and serve to illustrate (or amplify on) what is being said verbally. Illustrators are done primarily with the hands but they can also be done with the head, the face and the total body. Patterns of illustration appear to be learned in the family which, in turn, reflects the larger social or cultural pattern. (Mediterranean peoples, for example, use more illustrative gestures than do Anglo-Saxons). In all, six major types of illustrators have been identified: deictic movements (or pointers), pictographs, ideographs, spatial movements, kinetographs and batons. The pointer simply points to some present object in the sense of "I want that one." The pictograph draws a picture of the referent in the air. (According to Neill [1991, p. 69], pantomiming, which is frequently used in the classroom, is allied to pictographs; it involves demonstrating an action with a standardized imaginary object). The spatials show size or depict a spatial relationship. The kinetographs recreate some bodily action. The batons are movements which accentuate or punctuate; they beat out the tempo of the verbal statement (e.g., "I really [gesture] mean it [gesture]").<sup>4</sup> Ideographs trace the flow of an idea. They tend to be rolling or flowing movements that help the receiver see the connection between ideas or the direction in which a line of thought is moving.

Many factors can alter the frequency with which illustrators are displayed. More illustrators are used, for example, in face-to-face communication than over an intercom; more illustrators are used in "difficult" communication situations when words fail or when the potential receiver is unable to comprehend the intended message. Individuals who are excited and enthusiastic display more illustrators than do those who are not. Effective teachers who are involved with their ideas and who play a theatrical role in the classroom use a great many illustrative gestures (Neill, 1991, p. 153).

## **3. Affect Displays**

These are nonverbal signs or sign patterns that display affective or emotional states. The face is the primary source of affect (i.e., it is

considered the primary site for communication of emotional states); however, the body can also be read for global judgments of emotion. Affect displays can repeat, augment, contradict, or be unrelated to verbal affective statements. Affect displays are often not intended to communicate (i.e., they are involuntary) but they can be intentional.

Certain display rules—cultural and professional—are learned regarding facial expressions, although these rules are not always present at a conscious level of awareness when we use them. Another important aspect of our facial expressions is that we do not always portray “pure” or single emotional states in which, for example, all the parts of our face show one given emotion. Instead, the face conveys multiple emotions, which are called “affect blends.” An individual can also display “partials”—expressions in which only one portion of the face is activated. Our face also conveys what have been called “micromomentary facial expressions” or “micro-facials” (Knapp, 1980, p. 166). It is thought that these micromomentary expressions (which can be observed on slow motion film) reveal actual emotional states but are condensed in time because of repressive processes.

Although the face is capable of making hundreds of distinct movements and communicating many emotional states, those that have been uncovered by virtually every researcher since 1940 (and which are called primary affect displays) are: fear, surprise, anger, disgust, happiness, sadness and interest. In addition to information about specific emotions, people also seem to judge facial expressions primarily along the following dimensions: pleasant/unpleasant; active/passive; and intense/controlled.

The face is a multimessage system which can communicate information regarding one's emotional state(s) and personality as well as interest and responsiveness during interaction. It is a particularly important means of communication in the classroom. One of the most powerful (and most positive) cues is the smile on the face. A smile may temper a message that may otherwise be interpreted as extremely negative. A smile is one of the primary ways by which affiliativeness is communicated and may produce positive therapeutic effects in relationships. A teacher who smiles frequently communicates “immediacy” (i.e., warmth, spontaneity and enthusiasm)<sup>5</sup> and, since smiles are reciprocal behaviors, invites smiles in return. Students at all levels are sensitive to smiles as a sign of positive interest and concern.

#### **4. Regulators**

These are nonverbal acts or signs that maintain and regulate the give and take of speaking and listening between two or more interactants. They tell the speaker to continue, repeat, elaborate, hurry up, become more interesting; they give the other person a chance to talk; and so on. Familiar regulators associated with turn-taking include head nods, hand movements and eye behavior. Some of the behaviors associated with greetings and leave-takings may be regulators to the extent that they indicate the initiation or termination of face-to-face communication. Regulators seem to be on the periphery of our awareness and are generally difficult to inhibit. While they have an involuntary nature when we use them personally, we are very much aware of these signals when they are sent by others.

Head nodding is a kinesic behavior that communicates immediacy, especially when head nods are used by a listener to respond to a speaker (Andersen and Andersen, 1982). It is believed that, in both primates and human beings, head nods originated as ritual bowing gestures which signal submission and approachability. Research indicates that head nods are approval-seeking behaviors and tend to be used to increase communication and friendliness. Head nods are used by effective classroom teachers to communicate warmth, spontaneity and enthusiasm and to provide reinforcement to students. These nods provide a student with feedback that the teacher is listening to, and understanding his/her communication.

#### **5. Adaptors**

Adaptors are nonverbal markers that originated in the satisfaction of self needs, such as eating, cleansing oneself, rubbing tired eyes. Adaptors are not intended for use in communication as such but they may be seen when a person is alone or they may be triggered by verbal behavior in a given situation associated with conditions that occurred when the adaptive habit was first learned. (For the observer, the adaptor may have sign value; it may be an informative indicator of the performer's inner state).

Ekman and Friesen (1969b) have identified three types of adaptors: self-, object- and alter-directed. Self-adaptors refer to manipulations of one's own body, such as holding and rubbing. These self-adaptors will often increase as a person's anxiety level increases. Alter-adaptors are

learned in conjunction with our early experiences with interpersonal relations—giving to, and taking from another, attacking or protecting, establishing closeness or withdrawing. Ekman believes that many of the restless movements of the hands and feet, which have typically been considered indicators of anxiety, may be residues of adaptors necessary for flight from the interaction. Object-adaptors involve the manipulation of objects and may be derived from the performance of some instrumental task—such as writing with a pencil. (We are probably most aware of the object-adaptors as these behaviors are often learned later in life). Other researchers have combined self and object adaptors into one category called “body-focused movements” (Knapp, 1980, p. 134). There may be a close link between body-touching and preoccupation with oneself, reduction of communicative intent, withdrawal from interaction and a possible impoverishment of symbolic activity. (Teachers who use too many adaptors convey tenseness and uncertainty).

Some of the investigations of body movements and posture have examined various communication outcomes rather than specific types of nonverbal behavior. These outcomes or communicative goals include: (a) attitudes of liking/disliking, (b) status and power, (c) deception.

According to Mehrabian (1972, pp. 16–30), liking is distinguished from disliking and positive attitudes from negative attitudes toward another or others by more forward lean, a closer proximity, more eye gaze, more openness of arms and body, more direct body orientation, more touching, more postural relaxation and more positive facial and vocal expressions. Insofar as kinesics is concerned, postural relaxation and open body positions communicate increased warmth or immediacy. Folding one’s arms and holding one’s legs tightly together communicate defensiveness and coldness. The use of an arms-akimbo (hands on hips) position by a standing communicator is indicative of dislike. Teachers who are tense and anxious and who maintain closed body positions are perceived as cold, unfriendly and not very responsive; they communicate negative attitudes to their students. Andersen and Andersen (1982) found that more “immediate” college teachers demonstrate more relaxed body positions.

Other investigators have explored similar liking/disliking behaviors under the labels of warm/cold. Warmth indicators include a shift of posture toward the other person, a smile, direct eye contact and hands remaining still. A “cold” person looked around the room, slumped, drummed fingers and did not smile. Warmth cues were effective in increasing verbal output from the other person.

Kinesic immediacy is also communicated through more gestural activity. H. M. Rosenfeld (1966, 1967) found that smiles, head-nodding and a generally higher level of gestural activity characterized approval seekers. Mehrabian (1971) found that more hand and arm gestures per minute were a part of communicating greater affiliation with others. Andersen and Andersen (1982) found that more immediate college teachers employed more overall body movement. (As reported in Neill [1991, p. 33], uncertain teachers communicate their uncertainty to the class by "movements of escape," i.e., agitated, jerky movements, as opposed to the smooth movements of the confident individual). Some researchers believe that people who have very similar attitudes will share a common interaction posture, whereas noncongruent postures may reflect attitudinal or relationship distance. Therapists have reported the use of posture matching to promote greater client-therapist rapport. It has been shown that posture sharing (the extent to which teachers and students assume symmetrical body positions) has a positive effect on student-teacher rapport (Andersen and Andersen, 1982). Generally speaking, we do communicate interpersonal attitudes of liking and disliking, warmth and coldness, persuasion and affiliation, through our body movements. Properly used gestures (especially expansive ones) communicate interest and warmth in interpersonal interactions, therapy and teaching. Gestures not only help the teacher to illustrate ideas but also convey more enthusiasm for his/her subject area.

According to Knapp (1980, p. 138), Mehrabian's work provides us with information concerning the role of status in kinesic communication. Generally speaking, high-status or dominant persons are associated with less eye gaze, postural relaxation, greater voice loudness, more frequent use of arms-akimbo, dress ornamentation with power symbols, greater territorial access, more expansive movements and postures and greater height and more distance. Teachers should be aware of research in this area and, while they should not strive to be too "authoritarian," they must, as Lozanov states, play the dominant or leadership role in the classroom.

An increasing number of researchers are asking which nonverbal cues give a person away when he or she is trying to deceive someone. Investigators have found a variety of nonverbal behaviors associated with liars as compared to truthful communicators. According to these studies (Knapp, 1980, p. 140), liars will have a higher pitch, less gaze duration and longer adaptor duration, fewer illustrators (less enthusiasm), more hand-shrug emblems (uncertainty), more

adaptors (especially face play adaptors) and less nodding, more speech errors, a slower speaking rate and less immediate positions relative to their partners. While one would hope that no teachers would fit into the "liar" category, teacher credibility can obviously be enhanced if the above-mentioned non-verbal behaviors associated with deception are avoided.

Ekman and Friesen (1969a) developed a theoretical framework regarding the manifestation of nonverbal signals relating to deception. Considering sending capacity, internal feedback and external feedback, the face ranks highest; hands are next and feet/legs are last. The availability of leakage and deception clues reverses this pattern—the feet/legs being a good source of leakage and deception clues; the hands are next and the face is the poorest source. (Neill [1991, p. 150] reports research suggesting that deceivers show more vocal signs of stress than bodily signs of nervousness). Obviously, a failure to perform nonverbal acts that ordinarily accompany verbal acts is a "negative" sign. Non-verbal signals may contradict speech and leak information that the teacher is uncertain, has low expectations for, or limited interest in a particular student. Teachers who wish to have a positive impact on their students should follow Lozanov's advice and consciously create a harmony between the verbal and nonverbal elements of their presentations in the classroom. Because of a lack of conscious awareness, emotions which a teacher would prefer to remain hidden may be revealed by "nonverbal leakage" (Neill, 1991, p. 8).

## OCULESICS

The study of messages sent by the eyes is called oculusics. Throughout history we have been preoccupied with the eye and its effects on human behavior. We associate eye movements with a wide range of human emotions, from modesty and naiveté to wonder and terror. Our fascination with the eye has led to the exploration of almost every conceivable feature of the eyes (size, color, position) and the surrounding parts (eyebrows, rings, wrinkles). One important area of research (and one that relates to pedagogy) is concerned with eye contact (mutual glances, visual interaction, gazing or the line of regard).

Gaze refers to an individual's looking behavior, which may or may not be at the other person, whereas mutual gaze refers to a situation in which the two interactants are looking at each other, usually in the region of the face. Gazing and mutual gazing can be reliably assessed.

What should be considered "normal" gazing patterns will vary according to the background and personalities of the participants, the topic, the other person's gazing patterns, objects of mutual interest in the environment, and so on. According to Knapp (1980, pp. 185 ff), gazing involves regulating the flow of communication; monitoring feedback concerning others' reactions; expressing emotions; communicating the nature of the interpersonal relationship.

Gazing and mutual gazing is often indicative of the nature of the relationship between two interactants. Relationships characterized by different status levels may be reflected in the eye patterns. With all other variables held relatively constant, it has been found that gazing and mutual gazing is moderate with a very high-status addressee, maximized with a moderately high-status addressee, and minimal with a very low-status addressee (Knapp, 1980, pp. 188–189). Gaze is related to dominance in adults of both sexes (Neill, 1991, p. 39). We make more eye contact when we look at something rewarding to us. Eye contact communicates interested and friendly involvement with another/others.

Generally speaking, we seem to gaze more at people we like. According to Mehrabian's experiments (as reported in *Nonverbal Communication* and Knapp [1980, p. 189]), increased gazing is associated with increased liking. Therapist warmth is related to more glances at patients. Extroverts seem to gaze more frequently than introverts and for longer periods of time, particularly when they are talking. A person who is trying to be persuasive will generally look more. We gaze more when we are interested in someone else's reaction and when we are interpersonally involved. Listeners seem to judge speakers with more gaze as more persuasive, truthful, sincere and credible. Gaze in an experiment affected audience ratings on the following characteristics: skilled, informed, experienced and honest, friendly and kind. It has been found that speakers rated as sincere had an average of 63.4 per cent eye gaze whereas those who were rated insincere had an average of 20.8 per cent (Knapp, 1980, p. 194).

Eye contact, then, is an invitation to communicate and a powerful immediacy cue. True "communicators" spend a large percentage of time looking at one another in both interpersonal and teaching contexts. Numerous researchers have shown eye contact and gaze to be an important component of immediacy. (For example, Argyle [1967, pp. 105–116] found that perceptions of intimacy were, in part, a function of increased eye contact). Eye contact performs an important monitoring function which communicates to others that one is "taking

account of them," is available for, or open to communication and/or is really involved in the discussion, once it begins.

Andersen and Andersen (1982) have found eye contact to be an important part of teacher immediacy. As reported in Neill (1991, p. 70), excessive blinking is seen as a signal of uncertainty in a speaker. Avoiding the gaze of the "audience" by constantly looking at one's notes conveys a lack of enthusiasm and a lack of competence. Teachers who use more eye contact can not only more easily monitor and regulate their classes (gaze is a feature of dominant behavior), they can also communicate more warmth and involvement to their students. (Absence of visual attention is perceived as unwillingness to become involved; fixing the gaze on one or two individuals at the expense of others may be interpreted as favoritism). Greater eye contact increases the opportunity for communication to occur and enables the teacher to respond to the many nonverbal behaviors of students (such as eye-closing, for example, a sign that the student is closing off incoming stimuli). Teachers should position themselves so that they can and do establish eye contact with every student in the class. It is probable that immediacy cannot be successfully communicated by a teacher in the absence of eye contact.

## **PARALANGUAGE OR VOCALICS**

Paralanguage (i.e., the language alongside of language) deals with how something is said, as opposed to what is said; vocalics deals with the nonverbal elements of the human voice. When people talk, they communicate verbally or linguistically, through words, and nonverbally or nonlinguistically, through the way in which the words are spoken. Paralanguage or vocalics encompasses the range of nonverbal vocal cues surrounding common speech behavior. According to Trager (1958), paralanguage has the following components: (a) voice qualities (including such things as pitch range, rhythm, tempo, articulation, resonance); (b) vocalizations (including vocal characterizers, vocal qualifiers and vocal segregates). Vocal characterizers comprise such elements as laughing, crying, sighing, yawning, coughing, groaning, yelling, whispering; vocal qualifiers include intensity (over loud to over soft), pitch height (over high to over low) and extent (extreme drawl to extreme clipping); vocal segregates are related to the somewhat broader category of speech nonfluencies and include such things as "uh-huh," "um," "ah," and variants thereof. Work on such topics as silent pauses and intruding sounds would also be included in this category.

Numerous research efforts have been aimed at determining whether certain personality traits are expressed in one's voice and whether others are sensitive to these cues. Studies of content-free speech indicate that the voice alone can carry information about the speaker and his/her emotions and that emotional meanings can be communicated accurately by vocal expression. (For example, affection can be conveyed by a soft, low, resonant voice speaking at a slow rate, with a regular rhythm, steady and slight inflection and slurred enunciation [Knapp, 1980, p. 217]). Speakers vary in their ability to produce expressed emotion. Some people are more conscious of, and have more control over their expressive behavior. Individuals who have a high degree of self-monitoring behavior are better able to express emotions intentionally in both vocal and facial channels (Knapp, 1980, p. 215).

In addition to its role in personality and emotional judgments, the voice also seems to play a part in retention and attitude change, which has been primarily studied in the public speaking situation. Typical prescriptions for use of the voice in delivering a public speech include: (a) use variety in volume, rate, pitch and articulation; (b) decisions concerning loud-soft, fast-slow, high-low or precise-sloppy should be based on what is appropriate for a given audience in a given situation; (c) excessive nonfluencies are to be avoided. (Nonfluencies and hesitations are likely to be interpreted by a listener as symptoms of stress and uncertainty and overuse may reduce the speaker's credibility, appearance of competence and effectiveness).

It is clear that we can communicate various attitudes with our voice alone—for example, friendliness, hostility, superiority, submissiveness. Mehrabian and Williams (1969) conducted a series of studies on the nonverbal correlates of intended and perceived persuasiveness. Extracting only findings on vocal cues, the following seem to be associated with both increasing intent to persuade and enhancing the persuasiveness of a communication: more intonation, more speech volume, higher speech rate and less halting speech. A speaker's perceived credibility may profoundly affect his or her persuasive impact.

Vocalic communication is an important nonverbal element in the classroom. According to Neill (1991, p. 74), effective teachers use more varied and more animated intonation than ineffective teachers who use more neutral intonation. In a series of studies it has been shown that interpersonal liking is in large part a function of vocal cues (as well as facial cues), rather than verbal ones. Voices which are expressive, enthusiastic and varied (particularly in pitch and tempo) seem to convey the greatest immediacy.

Another vocalic behavior which communicates interpersonal immediacy is laughing. Considerable literature exists indicating that this vocal characterizer operates physiologically as a tension reducer and contributes to relaxation, especially during tense interactions. As reported in Andersen and Andersen (1982), an early study by Barr (1929), which examined the qualities of good and poor social science teachers, found that "good" teachers engaged more often in laughter, including laughing along with the class. According to Neill (1991, p. 90), effective teachers use a mixture of self-deprecating and pupil-directed humor. (Self-directed humor on its own is seen as weakness, pupil-directed humor alone as stern and/or sarcastic). It seems that teachers who are more willing to laugh with their students communicate more warmth and spontaneity to the class.

Vocal cues frequently play a major role in determining responses in human communication situations in general and in the classroom in particular. Vocal cues not only concern how something is said; frequently (like other nonverbal cues) they are what is said. Teachers should pay heed to Lozanov's advice: there should be a harmony between the vocal message and the verbal message.

## ENVIRONMENTAL FACTORS

This category concerns those elements that impinge on the human relationship but are not directly a part of it. Environmental factors include the furniture, architectural style, interior decorating, lighting conditions, colors, temperature, additional noises or music and the like, within which the interaction occurs. Variations in arrangements, materials, shapes, or surfaces of objects in the interacting environment can be extremely influential in our lives and in the outcome of an interpersonal relationship (as well as of a teaching situation).

Mehrabian (1976) argues, like Lozanov (1978), that we react emotionally to our surroundings and that the nature of our emotional reactions can be accounted for in terms of how arousing (i.e., stimulated, active and alert) the environment made us feel, how pleasurable (or satisfied) we felt and how dominant (or submissive) we are made to feel. Environments that are novel, surprising, crowded and complex will probably produce feelings of higher arousal. Knapp (1980, pp. 54–55) proposes the following framework for classifying perceptions of interaction environments: perceptions of formality (the greater the formality, the greater are the chances that the communication behavior will be less relaxed

and more superficial, hesitant and stylized); perceptions of warmth (environments that make us feel psychologically warm encourage us to linger, to feel relaxed and to feel comfortable); perceptions of privacy (enclosed environments usually suggest greater privacy and make for close speaking distances and more personal messages); perceptions of familiarity (in unfamiliar environments we are typically cautious, deliberate and conventional in our responses); perceptions of constraint (part of our total reaction to an environment is based on our perception of whether—and how easily—we can leave it); perceptions of distance (our responses within a given environment will be influenced by how close or how far away we must conduct our communication with another or others). Generally speaking, more intimate communication is associated with informal, unconstrained, private, familiar, close and warm environments.

Each environment is made up of three major components: (a) the natural environment—geography, location, atmospheric conditions; (b) the presence or absence of other people; and (c) architectural and design features, including movable objects. Insofar as the natural environment is concerned, temperature fluctuations and changes in humidity and barometric pressure have an impact on groups and individuals. According to scientific investigations, monotonous weather is more apt to affect one's spirits; seasonally one does one's best mental work in late winter, early spring and fall; and the ideal work temperature should be neither too high nor too low. Classroom temperature should be maintained between 66 and 72 degrees Fahrenheit, according to Todd-Mancillas (1982), in order to assure optimal performance when students are engaged in mental and physical activities. During winter months, classroom humidity should not fall below 30 per cent or rise above 50 per cent, as humidity levels either above or below this range are associated with student illness and absenteeism. Serious effort should be made to provide air conditioning in the classroom during the summer months.

Other people can be perceived as part of the environment and will have an effect on one's behavior. These people may be regarded as "active" or "passive" participants, depending on the degree to which they are perceived as "involved" in one's conversation (by speaking or listening). The presence of others may increase our motivation to "look good" in what we say and do, which may either be detrimental (information-distorting) or beneficial. (Lozanov, as has been mentioned, emphasizes the importance of the social environment, as well as the physical one).

Insofar as architectural and design features are concerned, a greater sense of well-being and energy has been found in rooms that are well appointed or beautiful—as opposed to neutral or ugly (Maslow and Mintz, 1956; Mintz, 1956). Well-decorated, attractive classrooms convey warmth and excitement to students whereas a drab, depressing classroom suppresses student enthusiasm and spontaneity. To facilitate positive classroom interactions, educators should select and arrange in an esthetically pleasing fashion furnishings and other artifacts which lend a pleasant ambiance to the learning environment. The presence of plants and art objects, as well as an appearance of neatness and the attractive arrangement of furniture, has an impact on students' comfort level and performance. Students, where appropriate, should also be encouraged to contribute "art work" to the classroom (Todd-Mancillas, 1982).

Studies have provided evidence concerning the impact of visual-esthetic surroundings on the nature of human interaction in the following areas: color, sound, lighting, movable objects, structure and design.

## 1. Color

Findings from environmental research suggest that colors, in conjunction with other factors, influence moods and behavior. Although optimal use of color probably varies as a function of context and individual preference, according to Mehrabian (1976, p. 90), the most pleasant (and relaxing) hues are: blue and green and the most arousing hues are red, orange and yellow. There is a body of educational and design literature which suggests that carefully planned color schemes have an influence on scholastic achievement. For younger students, classrooms should be painted warm colors, including yellow, peach and pink, while for older students (secondary school age and older), classrooms should be painted cooler colors, including blue and blue-green (Todd-Mancillas, 1982). L. B. Rosenfeld (1977) summarizes research done by Ketcham (in 1958) establishing empirical support for the proposition that learning is affected by variations in color of classroom environments. Children's IQ scores can be dramatically affected by variations in classroom color (those playing in warm, bright-colored rooms experience an IQ gain while the reverse is true for children playing in white, black or brown rooms). In addition, students feel more pride when attending schools with refurbished color schemes. Todd-Mancillas (1982) suggests that, when it is not possible

to repaint classrooms, every effort should be made by teachers to incorporate color variations in the actual learning and testing materials.

## **2. Sound**

The types of sounds and their intensity also affect interpersonal behavior. We react very differently to the drone of several people's voices, the overpowering sound emanating from a construction site or the soothing or stimulating sound of music. A large enclosed space—such an open classroom—creates a relatively hostile acoustic environment for the purposes of teaching (Neill, 1991, p. 122), although carpeting can reduce the noise of impact from students' feet, the movement of furniture, etc. and partitions can attenuate noise levels. According to Mehrabian (1976, pp. 49–51), music can have a strong and immediate effect on arousal level and pleasure. Generally speaking, the more pleasant the music, the more likely we are to engage in “approaching” rather than “avoiding” behavior. According to Todd-Mancillas (1982), playing soothing music is one means of generating positive emotions and cooperative behavior. The effect of slow, simple, soft and familiar-sounding music is to lower our arousal levels while maintaining pleasure and eliciting an easygoing and satisfying feeling. Since there is a positive correlation between soothing music and the heightening of pleasant interactions, music helps to establish suitable class moods and counteract class boredom.

## **3. Lighting**

Lighting also helps to structure our perceptions of an environment and these perceptions may very well influence the types of messages we send. If we enter a room that has dim lighting, we may talk more softly and presume that more personal communication will take place. Bright lights, on the other hand, are more apt to be arousing, add to initial discomfort in interacting with strangers and thus lead to less intimate interaction. Whenever possible, in the classroom, ordinary reduced-spectrum fluorescent lighting should be avoided and either incandescent or full-spectrum fluorescent lighting used instead (Todd-Mancillas, 1982). In the atmosphere of fluorescent lighting, children experience significantly greater nervous fatigue, eye strain, anxiety, irritability, lapses of attention, hyperactivity and decreased classroom

performance. Many educators have expressed the belief that natural light sources are preferable to artificial light sources and that all classrooms should have windows, preferably ones that open. In any event, static lighting systems which disallow modification of light intensity or hues, regardless of the weather conditions or the classroom activity, and which make for marked contrasts between lit and unlit areas, are to be avoided; individuals seek maximum control over their physical environment and when they are prevented from exercising this control, there is frequently a diminishing quality of their work and interpersonal relationships (Todd-Mancillas, 1982). Lighting in the classroom, as in the best restaurants, should be adjusted to minimize jarring harshness and to communicate a sense of comfort.

#### **4. Movable Objects**

Since the arrangement of certain objects in our environment can help structure the communication that takes place in that environment, we often try to manipulate objects in order to bring about certain types of responses. Desks seem to be an important object in the analysis of interpersonal communication. The presence or absence of a desk in a doctor's office may significantly alter the patient's state of easiness. Student-teacher relationships are also affected by desk placement. Most classrooms have a desk separating the students and their teachers. Several studies suggest that such physical barriers can become psychological barriers as well. Mehrabian and others have labeled environments which separate communicators as sociofugal and environments which bring communicators together as sociopetal (Andersen and Andersen, 1982). (Sociofugal classrooms include fixed seating in rows, teachers hidden behind podiums and hard chairs for students). "Unbarricaded" professors have been rated by students as more willing to encourage the development of different student viewpoints, as ready to give individual attention to students who need it and as less likely to show undue favoritism. Teachers who want to convey warmth and immediacy must ascertain if the classroom has physical (or psychological) barriers which reduce communication.

#### **5. Structure and Design**

Architecture can also have an affect, whether positive or negative, on human interaction. Like office buildings and dormitories, classrooms

tend to be constructed from a standard plan: they are rectangular in shape with straight rows of chairs. Most classroom seats are permanently attached to the floor for reasons of tidiness and ease of maintenance. Most classrooms have some type of partition (usually a desk) that separates the teacher from the students. Overall classroom structure and design can have a definite impact on student-teacher behavior.

Traditional row and column arrangements are appropriate in those instances where listening and note taking are the preferred instructional activities (Sommer, 1977). Modular arrangements are appropriate for facilitating multiple small group interactions, such as those that occur when students are divided into several small groups and all are working independently toward the resolution of a given problem (Todd-Mancillas, 1982). Sommer found that the odds of a student participating in class discussion are slightly greater for small classes. In seminar rooms, most participation comes from students who are seated directly opposite the instructor. In straight-row rooms, the following observations have been made: (a) students within eye-contact range of the instructor participated more; (b) there was a tendency for more participation to occur in the center sections of each row and for participation to decrease from the front row to the back (this tendency, however, was not evident when interested students sat in locations other than those that provided maximum visual contact with the instructor); (c) participation decreased as class size increased (Sommer, 1969, pp. 111–119; Sommer, 1974, pp. 81–101). It has been found that high verbalizers tend to select seats in the zone of participation more than low or moderate verbalizers (Knapp, 1980, pp. 67 ff). (As reported in Neill [1991, p. 113], high verbalizers are also likely to be the most dominant individuals and central seats in university classes are the most strongly defended if someone else takes them during a break; the central group of students is also more committed to learning).

Since spatial distance, proximity and setting can have a great impact on human interaction and communication, teachers should consider arrangements that reduce the number of students who are seated behind other students. For purposes of encouraging discussion among the greatest number of students, a circular or horseshoe arrangement is preferred, with the instructor at the head. This arrangement fosters interaction among the students but maintains the instructor as a moderator in control (Harrison, 1974, pp. 153–154). Insofar as group interaction is concerned, the more visual information one has about

other group participants, the more likely one is to engage in verbal exchanges with them (Todd-Mancillas, 1982). Teachers should also move around the classroom to establish contact with *all* of their students. Environment influences our behavior but we can also alter environments to serve our own communication goals.

## PROXEMICS

Proxemics is generally considered to be the study of our use and perception of social and personal space. Under this heading, we find a body of work called small-group ecology which is concerned with how people use and respond to spatial relationships in formal and informal group settings. Such studies deal with seating and spatial arrangements related to leadership, communication flow and the task at hand. The influence of architectural features on residential living units and on communities is also of concern to those who study human proxemic behavior. On a broader level, some attention has been given to spatial relationships in crowds and densely populated situations. Our personal space orientation is sometimes studied in the context of conversational distance and how it varies according to sex, status, roles, cultural orientation, and so forth. The term "territoriality" is frequently used in the study of proxemics to denote the human tendency to stake out personal territory—or untouchable space—much as do animals and birds in the wild.

Our use of space (our own and others') can dramatically affect our ability to achieve certain desired communication goals. In *The Hidden Dimension*, Edward Hall (1966) identified three types of space: fixed-feature space, the type created by immovable walls and objects; semifixed-feature space, created by large objects such as chairs and tables; informal space, the bubble of personal space individuals carry with them as they move from interaction to interaction. He further classified informal space into four subcategories: intimate, casual-personal, social-consultative and public. Intimate distances (at least for Americans) range from actual physical contact to about 18 inches; casual-personal extends from 18 inches to 4 feet; social-consultative (for impersonal business) ranges from 4 to 12 feet; and public distance covers the area from 12 feet to the limits of visibility or hearing. Spatial relationships in cultures other than American, with different needs and different norms, may, however, produce different distances for interacting.

Distance is said to be based on the balance of approach and avoidance forces. Factors modifying the distances we choose include: (a) age and sex; (b) cultural and ethnic background; (c) topic or subject matter (pleasant topics attract); (d) setting for the interaction (lighting, temperature, noise and available space affect interaction distance); (e) physical characteristics of one's interaction partner; (f) attitudinal and emotional orientation (subjects choose closer distances when interacting with a "friendly" person); (g) characteristics of the interpersonal relationship (as status is associated with greater space or distance in our culture, those with higher status have more and better space and greater freedom to move about); (h) personality characteristics (closer distances are seen when people have a high self-concept, high affiliative needs, are low on authoritarianism and are "self-directed") (Knapp, 1980, pp. 82 ff).

In addition to studying human spatial behavior in overcrowded situations and in conversation, some researchers have examined such questions in the context of meetings or small groups—particularly with regard to seating patterns. The study of seating behavior and spatial arrangements in small groups (as mentioned above) is known as small-group ecology.

It seems to be a cultural norm that leaders are expected to be found at the head or end of the table. Inversely, one's position in a group is an important factor in leadership emergence. (Spatial position determines the flow of communication which, in turn, determines leadership emergence). Cooperation seems to elicit a preponderance of side-by-side choices in seating. Spatial orientation and seating selection are influenced by age and sex; motivation (as motivation for contact and conversation increases, persons want to sit closer to, or have more eye contact with another/others); introversion/extroversion (extroverts choose to "sit opposite" and disregard positions which would put them at an angle; introverts generally choose positions that keep them at a distance, both visually and physically) (Knapp, 1980, pp. 90 ff). It is clear that our perceptions and use of space contribute extensively to communication outcomes. Distances and seats chosen in small groups do not seem to be accidental. Seating will vary with the topic at hand, the nature of the relationship between the parties and certain personality variables.

At least two proxemic cues are thought to signal warmth and spontaneity during communication and create a positive atmosphere in the classroom: (a) reduced or closer physical distance between teacher and students; (b) body angle of the teacher in the classroom.

Since researchers have found that communicators stand closer to people they like than to those they dislike, closer distances result in more positive attitudes and establish greater teacher/student contact and closeness in the classroom. Many teachers, according to Andersen and Andersen (1982), fail to establish much interpersonal closeness with a class because they remain physically remote. Standing at the front of the room or sitting behind a desk are all too common forms of teacher behavior. In these "remote" positions, it is quite difficult for a teacher to develop a close relationship with a class, even if the teacher wants to develop such a relationship. Nervous, insecure teachers establish their "territory" around their desk whereas confident teachers use the entire room and frequently move among their students. As reported in Neill (1991, p. 111), "itinerant" teachers are viewed as more encouraging and more supportive of students' ideas.

The second proxemic behavior that signals closeness and warmth is body angle or body orientation. More immediacy is communicated when two or more interactants face one another (Andersen and Andersen, 1982). Many teachers do not fully face their class when teaching. They hide behind desks, podiums and tables and often continuously write on the blackboard, with their backs to the students. Not only does this behavior reduce the direct contact between teachers and their classes, it also removes any visual communication between the teacher and the class members. In this situation, the teacher cannot see behavior problems, fails to receive any nonverbal communication from the students and cannot field questions or comments. Experienced teachers learn to do most of their blackboard work before the class begins and spend the largest amount of their teaching time facing their "audience."

According to Mark Knapp (1980, pp. 231 ff), the ability to send and receive (encode and decode) nonverbal cues accurately is essential for developing social and professional competence. Effective senders of nonverbal signals are outgoing, active and popular. According to research findings, individual teachers (among other professionals) who were rated "excellent" at their jobs did well on the PONS instrument (the Profile of Nonverbal Sensitivity, developed by Robert Rosenthal, which measures nonverbal decoding ability). Much of the ability we have in sending and receiving nonverbal signals is derived from motivation, attitude, observation and experience.

It is well established in the study of interpersonal communication that nonverbal behaviors can communicate feelings of warmth and positive emotions (Andersen and Andersen, 1982). Of the three

domains of learning, nonverbal immediacy behaviors have their most powerful impact on affective learning. (However, since affective learning influences cognitive achievement, the skilled use of nonverbal communication probably has positive effects on cognitive learning as well [Andersen and Andersen, 1982]).

Students feel more positively disposed towards teachers who are skilled in the positive use of nonverbal communication. In fact, half of the variance in college student liking for an instructor could be accounted for by immediacy behaviors of the teacher (Andersen and Andersen, 1982). A study of college student preferences indicated that responding warmly to students was a major characteristic of an ideal teacher. In contrast, college students responded very negatively to a formal, "nonimmediate" instructor. Across many grade levels, it has been observed that creating a friendly atmosphere is one of the most important elements in establishing good teacher-student relationships.

Immediate teachers (i.e., those who are warm, spontaneous and friendly) also produce a more positive student attitude toward the course, the subject matter and the educational institution. (As reported in Neill [1991, p. 158], a nonverbally positive teacher is regarded by students as more effective). College students are more likely to enrol voluntarily in future classes in the same subject area when the instructor is immediate. (On the other hand, researchers found a greater percentage of students interested in dropping a class after a session with an instructor who was formal and nonimmediate [Andersen and Andersen, 1982]).

Teacher immediacy is also associated with more class participation. A variety of experimental studies have consistently supported the finding that subjects in conditions with more immediate interactants are more likely to engage in greater amounts of verbal interaction. When college students were given a description of an instructor, 56 per cent of the students initiated interaction with the instructor when the latter was described as warm, while only 32 per cent initiated interaction when the instructor was described as cold (Andersen and Andersen, 1982).

Students are also more likely to engage in continued reading and studying when the teacher is immediate. A strong relationship has been reported for secondary school students between affiliative behaviors of teachers and self-initiated work by students. A friendlier teacher is more persuasive. Andersen and Andersen (1982) found that students of more immediate teachers are more willing to engage in the communication strategies suggested in the course.

While some researchers suggest that a genuinely warm, positive attitude towards students is probably a prerequisite for a teacher to communicate immediacy successfully, others have found that teachers who were trained to be more enthusiastic did, indeed, develop more enthusiastic attitudes towards teaching (Andersen and Andersen, 1982). Since teacher immediacy behaviors have the potential to make the teacher and the learning environment more attractive to the student, questions have been raised concerning the role of nonverbal factors in the selection process for admission to teacher's college and the place of courses on nonverbal communication in the teacher-training curriculum.

Are nonverbally skilled teachers "born" or are their skills "made"? (Neill, 1991, pp. 147 ff). It seems likely, according to Neill (1991, p. 164), that teaching skills (including nonverbal ones) are acquired interactively, with both pre-existing talents and course experience contributing to the total effect. Nonverbal skills may be acquired (or improved upon) by observation and imitation of model-teachers, by self-observation and/or by specific training or instruction. Direct training approaches which focus on specific behaviors are considered more effective than indirect training, which aims to change more general personality attributes. According to Neill (1991, p. 157), effective direct training courses in nonverbal communication contain at least two of the following four elements: presentation of theory, training in discriminating nonverbal signals, modelling of the skills involved and practice of the new skills with feedback.

## **NONVERBAL COMMUNICATION IN SUGGESTOPEDIA**

It appears, from reading Lozanov's writings, that the staff at the Institute of Suggestology was never directly involved, as such, in research into nonverbal communication and its role in the classroom. However, the original suggestopedic language class incorporated many of the elements discussed in this chapter. Most probably, Lozanov, his program planners and carefully selected language teachers intuitively understood the important role of nonverbal elements in communication and in the teaching process.

Insofar as kinesics or body movement is concerned, teachers at the Institute of Suggestology were trained to use gestures in their presentation of the lesson material and pantomime to suggest the meaning of new words in the foreign language. Through positive facial

expressions, eye contact, as well as expansive gestures, they projected self-confidence and competence. While playing and maintaining a dominant (or high-status) role, they also radiated warmth and spontaneity as well as concern and liking for their students. Their verbal and nonverbal behaviors were synchronized or harmonized so that students received the same positive message of support and encouragement at both the conscious and unconscious levels.

Great importance was (and still is) attached in Suggestopedia to the voice qualities (as well as the accent) of the teacher. Student teachers had their lessons recorded at the Institute of Suggestology in the late 1960s and early 1970s and recordings were subsequently listened to by the student teacher and his/her supervisor. In the presentation of the lesson, the teacher was expected to vary the pitch, loudness and tempo of his/her speech, in the manner of a well-trained actor. Immediacy was communicated through positive emotions and laughter. During the original "active" session, the teacher had to use three tones of voice correctly in the presentation of the new language material; during the original "passive" session, the voice had to be positioned correctly so that a soft, soothing, persuasive tone was achieved for the artistic reading of the lesson-text over a background of baroque music.

Careful attention was paid at the Institute of Suggestology to environmental factors in learning. Classrooms were small but pleasant and attractive, with windows that opened out onto a rose garden. Pale colors and soft lighting were utilized. Various kinds of music were used to create pleasant sounds—in particular, soft and slow-moving music during the original passive (or relaxation) session. The number of students was restricted to 12 per class and teachers were able to move freely in the classroom and to interact with all class members. The students, when seated, were arranged in a circular or horseshoe arrangement, with the instructor at the head. (As mentioned earlier, this arrangement is ideal for fostering student interaction while maintaining the instructor as a "dominant" figure). The two proxemic cues that signal warmth and spontaneity (or immediacy) during communication were (are) also used in suggestopedic language classes: viz. close physical distance between instructor and students; body orientation of the teacher facing the class.

Insofar as teacher training is concerned, as mentioned in Chapter 2, candidate teachers were trained one-on-one at the Institute of Suggestology in the late 1960s and early 1970s, not in nonverbal communication as the term is understood in North America and Western Europe, but in psychology, acting and the art of suggestion,

i.e., those disciplines of which nonverbal communication is a natural part. And even if it was not labelled as such, teacher-candidates were trained in the practice of nonverbal communication in the classroom—under the guidance of such master teachers as Aleko Novakov.

## NOTES

1. At the secondary and university levels, videotape-studies suggest effective teachers convey more enthusiasm nonverbally than average or ineffective teachers. It has been found that effective language instructors of university courses made more use of nonverbal signals to focus student attention on important points, to demonstrate or illustrate points they were making and to encourage students by approaching them. Average teachers were more likely to use directing or threatening signals or to show anxious signals (Neill, 1991, p. 66).
2. According to Knapp (1980, p. 98), we initially respond much more favorably to those whom we perceive as physically attractive than to those who are seen as less attractive or ugly. Higher-ranked clothing is associated with an increase in rank, whereas lower-ranked clothing is associated with loss of rank (Knapp, 1980, p. 115). According to Dhority (1992, p. 56), the teacher's mode of dress is very important; appearance and dress are part of the total nonverbal stimuli that influence interpersonal responses between teacher and students.
3. Touching behavior or tactile communication can—and increasingly does, in today's society—elicit negative or hostile reactions in spite of the continuing popularity of therapeutic methods used to put individuals "in touch" with themselves and others.
4. In general, the maximum intensity of illustrative gestures in English coincides with the stressed syllable; the pattern is different in languages such as French where stress is little used (Neill, 1991, p. 141).
5. Nonverbal immediacy behaviors are approach behaviors which signal availability for communication; immediacy behaviors communicate interpersonal closeness and warmth (Andersen and Andersen, 1982, p. 115).

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## CHAPTER 8

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# Brain Waves and Hemispheres

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### TWO MODES OF CONSCIOUSNESS

As was the case with Rosenthal's *Pygmalion in the Classroom*, it is unlikely that there is a definite link between Robert Ornstein's *The Psychology of Consciousness* and Georgi Lozanov's *Suggestologia*, the Bulgarian original of *Suggestology and Outlines of Suggestopedya*. Nonetheless, once again, it is interesting to compare the research work of the staff members at the Institute of Suggestology with that of Western (and, in particular, American) researchers in another important area: that of the human brain.

In his thesis, Lozanov (1978, p. 225; pp. 255 ff) mentions the participation of the left and right hemispheres of the brain in the suggestopedic process of instruction. In the new and final chapter, "Characteristics of the Desuggestive-Suggestive, Liberating-Stimulating System," added for the official English translation, he outlines the new "means" of the unity of conscious and paraconscious and integral brain activity in Suggestopedia (pp. 259 ff).

In *The Psychology of Consciousness*, first published in 1972 (i.e., one year later than Lozanov's thesis, *Suggestologia*), Ornstein presented the theory of the two modes of consciousness: the verbal, rational, analytic, scientific mode vs. the nonverbal, intuitive, artistic and holistic mode. These two major modes of consciousness were linked to the two hemispheres of the cerebral cortex of the brain, viz. the left and the right. While researchers now tend to dispute the neat symmetry of Ornstein's theory (Springer and Deutsch, 1993), it is nonetheless appropriate to outline its main elements as the theory of the "two

modes of consciousness" relates to Suggestopedia, on the one hand, and has important implications for pedagogy, on the other.<sup>1</sup>

Joined by a large bundle of interconnecting fibers called the corpus callosum, the cerebral cortex of the brain is divided into two hemispheres. The left side of the body is mainly controlled by the right side of the cortex and the right side of the body by the left side of the cortex. (The right ear is connected to the left hemisphere and the left ear to the right hemisphere; images in the left visual field are projected to the right hemisphere, images in the right visual field to the left hemisphere). When we speak of "left" in ordinary speech, we are referring to that side of the body and to the right hemisphere of the brain.

According to Ornstein (1972, p. 51), both the structure and the function of these two "half-brains" underlie "the two modes of consciousness which simultaneously coexist within each one of us." Although each hemisphere shares the potential for many functions and both sides participate in most activities, in the normal person the two hemispheres tend to specialize. The left hemisphere is predominantly involved with analytic, logical thinking, especially in mathematical and verbal functions.<sup>2</sup> Its mode of operation is mainly linear and sequential; it moves from one point to the next in a step-by-step manner. The left hemisphere is specialized to detect features, to recognize the parts that make up a whole. (A capacity for paired associate learning appears to be connected to the left hemisphere).

If the left hemisphere specializes in analysis, the right hemisphere is more holistic and relational. The left hemisphere separates out the parts that constitute a whole; the right specializes in combining those parts to create a whole; it engages in synthesis, pattern recognition and the integration of information. This hemisphere is primarily responsible for visual and spatial processing—our orientation in space, body image, recognition of faces, artistic endeavor. (The left ear, connected to the right hemisphere, is linked to music, in contrast to the right ear which is linked to verbal material). The right hemisphere does not move linearly; it processes information more diffusely than does the left hemisphere and it is more simultaneous in its mode of operation. The ability for creative-associative thinking is associated with the right hemisphere.

The differential specialization of the two cerebral hemispheres is largely based on research into the brain-damaged. For scientists the right and left cerebral hemispheres have long been the subject of study and debate. Since the nineteenth century and the research of

Paul Broca and Carl Wernicke, it has been found that damage to the left hemisphere very often interferes with (or even destroys) language ability. In contrast (as shown, for example, during research on brain-injured patients during World War II), an injury to the right hemisphere may cause severe disturbance in spatial awareness, musical ability, recognition of other people or awareness of one's own body. This right/left specialization is based on righthanders. Lefthanders, who represent about five per cent of the population, are less consistent; some have reversed specialization of the hemispheres, but some have mixed specialization, for example, language in both sides.

Since the dominant mode of Western culture is verbal and intellectual, and damage to the left hemisphere of the brain affects speech and reason, the left hemisphere has been termed the "major" hemisphere. Until recently, little consideration has been given to the special capacities of the right hemisphere since the preoccupation of clinical neurologists has been with the left hemisphere and, in particular, with lesions in those specific areas of the left hemisphere that are associated with specific kinds of language disorders. However, according to Ornstein, each hemisphere may be considered the major one, depending on the mode of consciousness under consideration. For example, the right hemisphere is dominant with respect to certain mental processes (such as music) and thinking can be carried through when language is inadequate to express it.

The 1960s research of the 1981 Nobel prize winner, Roger Sperry, and his associates into "split brain" patients (i.e., those who have their corpus callosum severed because of severe epilepsy) provides much of the basis for Ornstein's theory of the "two modes of consciousness." These split-brain patients effectively possess two brains within one body. In tests conducted with split-brain patients, Sperry and his associates were able to study the functioning of one hemisphere isolated from the other and to gain insight into the specialization of the two hemispheres. Research with the split-brain subjects also indicated that their two hemispheres can simultaneously process more information than can those of a normal person and that their "two brains" can provide a clear example of dual response to a given situation.

In addition to experiments with "patients," experiments conducted with "normal" individuals reveal that we possess two hemispheres. For example, when a tachistoscope is used to introduce information to only the right hemisphere and either a nonverbal or a verbal response is required, the nonverbal response comes more quickly than the verbal

one. (A verbal response requires the information to be sent across the callosum to the left hemisphere, which takes some time). The normal brain does indeed make use of lateral specialization, selecting the appropriate area for differential information processing.<sup>3</sup>

The normal brain constantly exhibits electrical activity in the form of very low voltages, as recorded at the scalp by the electroencephalograph or EEG. If the EEG is recorded from both hemispheres of a normal person during the performance of verbal or spatial information-processing tasks, different brain-wave patterns result. During a verbal task, the alpha rhythm in the right hemisphere increases relative to the left and in a spatial task the alpha increases in the left hemisphere relative to the right. The appearance of the alpha rhythm indicates a "turning off" of information processing in the area involved. Studies show that when a person is writing, more alpha rhythm is present in the right hemisphere; while arranging blocks, on the other hand, more alpha is present in the left hemisphere. We tend to turn off the hemisphere not involved in the situation.

According to Ornstein, the recognition that we possess two cerebral hemispheres which are specialized to operate in two different modes may allow us to understand much about the fundamental duality of our consciousness. This duality has been reflected in classical as well as in modern literature as a conflict between reason and passion, or between mind and intuition. Perhaps the most famous of these dichotomies in psychology is the one proposed by Sigmund Freud of the split between the "conscious" mind and the "unconscious." The workings of the conscious mind are held to be accessible to language and to rational discourse and alteration; the unconscious is much less accessible to reason or to verbal analysis. (Some aspects of "unconscious" communication are gestures, facial and body movements, tone of voice).

In Ornstein's opinion, in most ordinary activities, we simply alternate between the two modes of consciousness (or the two hemispheres of the brain), selecting the appropriate one and inhibiting the other. The two modes of operation complement each other<sup>4</sup> but do not readily substitute for one another. While it has been noticed that some persons habitually prefer one mode over the other, it is the polarity and the integration of these two modes of consciousness, the complementary workings of the intellect and the intuitive, which underlie our highest achievements.

This duality in human consciousness has long been recognized in many cultures. There is a myth and symbolism of left and right, with

the left side of the body (i.e., the right hemisphere) being the area of the taboo, the sacred, the unconscious, the feminine, the intuitive. The idea of the complementarity of two major modes of consciousness is hardly new; what is "modern" is a recognition that these modes operate physiologically as well as mentally and culturally. Dichotomies, old and new,<sup>5</sup> which Ornstein attributes to the two modes of consciousness include:

Day	Night
Intellectual	Sensuous
Time, History	Eternity, Timelessness
Active	Receptive
Explicit	Tacit
Analytic	Gestalt
Right (side of body)	Left (side of body)
Left hemisphere	Right hemisphere
Propositional	Appositional
Lineal	Nonlinear
Sequential	Simultaneous
Focal	Diffuse
The Creative:heaven	The Receptive:earth
Yang	Yin
Masculine	Feminine
Light	Dark
Time	Space
Verbal	Spatial
Intellectual	Intuitive
Causal	Acausal
Argument	Experience

Many different occupations and disciplines involve a concentration in one of the major modes of consciousness. Science and law are heavily involved in linearity, duration and verbal logic. Crafts, the "mystical" disciplines and music are more present-centered, aconceptual, intuitive. A complete human consciousness, however, according to Ornstein (1972, pp. 67-68), involves the polarity and integration of the two modes, just as a complete day includes the daylight and the darkness. While any significant scientific breakthrough is usually preceded by a good deal of primarily logical, linear thinking, intuitions or moments of insight have most often come to scientific investigators when the normal rational processes are temporarily suspended. Albert Einstein, for example, said of his own creative processes, "The really valuable thing is intuition."

In *The Psychology of Consciousness*, Ornstein presents arguments in favor of the education of the "intuitive mode." He bases his arguments on "traditional esoteric psychologies" (such as yoga, tai chi, Zen) according to which consciousness becomes more complete if the "complementary mode" (i.e., the right hemisphere of the brain) is developed or involved. Meditation may have valuable consequences not only for the maintenance of health but also for self-regulation, discipline and concentration. "Western educational systems largely concentrate on the verbal and intellectual. We do not possess a large-scale training system for the other side, but it is just this training which is the specialty of the esoteric psychologies. They form a complement to most of modern, western education" (Ornstein, 1972, p. 162).

The realization that we possess two different and complementary ways of processing information—a linear, step-by-step style that analyzes the parts that make up the pattern (in the left hemisphere) and a spatial, relational style that seeks and constructs patterns (in the right hemisphere) stirred considerable excitement among American educators in the 1970s and 1980s and created a desire to explore the applications of hemispheric research to the classroom. It was realized that, while we have a good deal of experience with linear, analytical approaches to education, if we are to teach for the full range of students' cognitive abilities, we must complement those "left-brain" techniques with others which make use of the right hemisphere's preference for patterns and wholes and its visual/spatial capacities (Williams, 1983, pp. xi–xii). Research on teaching wherein more than one area of the brain is involved has shown that both learning rates and retention can increase dramatically (Schuster and Gritton, 1986, p. 75).

According to Linda VerLee Williams in *Teaching for the Two-Sided Mind*, hemispheric specialization has significance for all areas of education. Traditional teaching techniques should be reevaluated and/or broadened and new teaching techniques created in the light of "new" information about how the brain operates. In the classroom, information can (and should) be presented in a number of different ways in order to allow students to learn more efficiently. "When lessons are presented visually as well as verbally, when students make their own connections between what is to be learned and what they already understand, and when all the senses are engaged in the learning process, students are able not only to learn in the way best suited to their style, but also to develop a full and varied repertoire of

thinking strategies" (Williams, 1983, p. 10). In Williams' opinion, there are no right or left hemisphere subjects. There are, however, two major learning styles: one that is primarily sequential and the other that relies more on pattern recognition (even for a subject like mathematics).

According to Williams (1983, pp. 30 ff), teaching techniques for the right hemisphere are: (a) visual thinking (i.e., visual strategies and images); (b) fantasy (i.e., the ability to generate and manipulate mental imagery); (c) evocative language (such as that found in poetry); (d) metaphor (it appears that connections between two seemingly unrelated things are probably made by the silent right hemisphere and transmitted to the left through some form of imagery); (e) multisensory learning (including not only verbal and auditory stimuli but also tactile and kinesthetic stimuli; while both hemispheres process sensory stimuli, it seems likely that stimuli that are nonverbal are processed primarily in the right hemisphere); (f) music (while music can be processed in either hemisphere, most listeners seem to use their right brain);<sup>6</sup> (g) direct experience (which presents students with an opportunity to approach the subject more holistically). Those of Williams' teaching techniques for the right hemisphere which are particularly applicable to Suggestopedia are the following: visual thinking, fantasy, multisensory learning, music, direct experience (especially simulation and role-play).

According to Williams, visual thinking is too often associated only with the visual arts and relegated to a single place in the curriculum. However, visual thinking is a part of every subject because it is a basic way of obtaining, processing and representing information. "To ignore its role in any subject is to fail to train students in its use and to deny to those who are primarily visual processors the opportunity to learn in the mode which comes most easily for them" (Williams, 1983, p. 85).

The role of visual thinking in the classroom is threefold (Williams, 1983, pp. 85 ff). It begins with seeing and observation. (Drawing, for example, can improve observation skills). Students need to learn what to look for and how to interpret what they see. (Films and videocassettes can provide valuable sources of visual information). Secondly, students need help in representing information graphically. Drawings, diagrams, mind maps and other graphic representations—preferably in color—are useful teaching aids in that they improve comprehension and enable students to clarify their thinking and to communicate their ideas to others. Finally (and this is especially true in the television age when imagination is stunted), students need help in developing their "inner eye." Visualizing (or visualization), the ability to generate and

manipulate visual imagery, helps with a wide variety of tasks including remembering information, learning vocabulary items, performing mathematical functions and solving practical problems involving spatial relations.

Visualization, the ability to recall and construct visual images within the mind, is a very basic thinking mode and an aid to memory that goes back at least to the ancient Greeks. The "loci" method, developed by Simonides, a Greek poet of the fifth and sixth centuries B.C., enabled orators to remember long sequences of information so that they could speak from memory for hours without forgetting a single point. The loci method, in which each item one wants to remember is associated with a given spot in a fixed setting (such as a house with numerous rooms), is useful for remembering in sequence; where sequence is not important, one can create images which associate or connect two or more things without putting them in a fixed setting. Constructing visual images associated with vocabulary items aids in recall. (Vivid, brightly colored, dramatic images are more easily remembered. In the original suggestopedic session, students visualized the "dramatic" events when the teacher read the language dialogue over music; in the second or Gateva version, as we shall see, considerable use is made during the lesson of vivid, colorful classroom posters). Another application of visualization which many teachers use (very often unconsciously) is the suggestion of visual and other sensory images as part of a verbal presentation. A skillful lecturer uses words not only to communicate ideas but also to create a sensory (or multisensory) experience, to make the listener(s) see and feel what is being discussed. Ideas presented by the teacher and which are accompanied by graphic representations offer to the students visual images which can be stored and recalled as a means to retrieve that information.

Students can be helped to learn vocabulary items by using visual memory.<sup>7</sup> They should be reminded to "look at the picture" before they write and to check the word against the picture after they write it. Visualization can be used in exam preparation (Pecollo, 1987). Students can be reminded that they carry with them in their minds pictures of their notes and the textbook. Whenever they encounter difficulty, they should breathe deeply and check their mental image file.

Williams distinguishes between visualization (inner imagery that is fairly static) and fantasy (which is similar to a multisensory movie that tells a story or has an interesting sequence). One obvious advantage of using fantasy is that it can take you places you cannot reach any other

way (for example, an exotic country in a foreign language class). Fantasy can produce a more positive attitude toward learning. It also has the power to help some students assimilate and use information which remains inaccessible when presented in more left-brain modes. Positive images and fantasies can help students establish more effective study habits. Although fantasies do not substitute for study, they may make it easier for students to relax, concentrate on their work and study more effectively.

Fantasies include relaxation exercises, observer fantasies (in which one is an outside observer), and identification fantasies (in which one identifies with some image or object). Identification fantasies stimulate greater involvement than those in which students are observers. (Such fantasies require them to project themselves into the object they are imagining, to feel as it would feel). Fantasies may be suggested (a suggestion is given and the mind waits for a series of images to occur) or guided by the instructor. While one cannot force a fantasy, one can, however, create the conditions which allow images to reach consciousness easily. The mind must be in a state of relaxed attention, alert and receptive to inner imagery. Fantasy can be experienced best in a comfortable, quiet place, with dim lighting. The voice of the instructor should be pleasing (i.e., soft and soothing) and the pace of the suggested or guided fantasy should be slow. Most people concentrate better on fantasy with their eyes closed. (While the original passive session in Suggestopedia fulfills these conditions for creating "fantasy," as we shall see in Chapters 14 and 15, such adaptations of Suggestopedia as Donald Schuster's Suggestive-Accelerative Learning Techniques [or SALT] Method and Lynn Dhority's Acquisition Through Creative Teaching [or ACT] provide better examples of the use of fantasy in the classroom).

In addition to introducing new material and to stimulating writing (by encouraging the students to use their imaginations), fantasy can also serve as a review technique, a means of helping students retain information. By generating sensory images which are connected to the material students want to retain, fantasy gives them a way to remember, a strategy based on imagery as well as words. This approach is especially helpful for those who are less verbally oriented. Care must be taken, however, when introducing fantasy into the classroom; as Lozanov himself has emphasized, negative images and emotionally charged subjects are to be avoided. (Suggestopedic language dialogues are designed to evoke positive emotions in the students). Students' reactions during and after the fantasy should be assessed.

The senses are the means by which we take in information; they tell us what we know about the world around us and form the basis for the development of abstract thought. The sensory system includes not only the five senses of sight, hearing, touch, smell and taste but also the proprioceptive senses—the kinesthetic, vestibular and visceral systems which monitor internal sensations. In Williams' opinion (and in the opinion of many educators), an ideal classroom would be organized around experiences which stimulate all types of thinking—not just linear processes.

The auditory, visual and tactile-kinesthetic senses form the major learning modalities, the primary pathways by which information is taken in. (Kinesthetic and tactile learning are sometimes linked together although they actually involve different systems. The tactile system involves receptors in the skin. The kinesthetic system registers movements; its receptors in the muscles and tendons provide information on body movement). Too often in our classrooms we overlook the kinesthetic component of learning, since it is usually outside of conscious awareness. According to Williams (1983, pp. 154 ff), forms of kinesthetic stimulation which can be used in the classroom include: movement and movement games (these are especially used in Total Physical Response but also, albeit in a more limited way, in Suggestopedia; movement in the classroom is especially appropriate for students who in today's crowded, sedentary society do not get the variety of movement experiences they need); dance (which, as we shall see when we discuss the second version of Suggestopedia and Dhority's ACT, can contribute to academic learning and to the development of creativity); gesture (which not only helps communication but also facilitates thinking and expression and aids memory; students, especially those who are primarily kinesthetic, can improve their memories by putting a gesture to each thing they need to remember). In suggestopedic language classes, teachers use gestures to suggest the meaning of new words and expressions in the foreign tongue. As we have seen in the chapter on nonverbal communication, gestures are an important part of communication in many countries and students communicate much better if they have a gestural as well as a verbal vocabulary.

Music, like art, is an important part of human experience and should therefore be part of education for its own sake. However, music, as has already been mentioned, can also be used as an aid to learning. Research with stroke victims indicates that songs actually bridge the hemispheres—that is, the right hemisphere learns the

melody while the left learns the words. Therapists find that some patients who have lost the ability to talk can learn to speak and remember simple phrases when the phrases are set to musical fragments (Williams, 1983, p. 163). This finding suggests that when students learn verbal information with a song, they may have an extra aid in recalling it. Music helps in retention (Xia and Alexander, 1987);<sup>8</sup> singing can make a tedious task enjoyable and keep students' attention and interest. (In the Orff-Schulwerk philosophy of music education, music is used to teach other subjects, to develop creative capacity; students also explore and improvise with different rhythmic patterns through clapping and movement). In foreign language classes, learning songs (folk songs, for example) is an enjoyable way to build vocabulary, learn new language patterns and develop fluency.

In addition to singing, Suggestopedia uses background music to facilitate and accelerate the learning of foreign languages. In the concert session, music is one of the principal tools for inducing a relaxed mental state in which material is more easily absorbed and retained. According to Williams (1983, p. 166), Lozanov's work suggests a "powerful new role" for music in learning. It has been hypothesized that, since music is processed by the right brain and language by the left, both hemispheres are activated during the suggestopedic concert session (Joiner, 1984, p. 336).

Textbooks and lectures are usually organized in a linear fashion. Experiential learning, on the other hand, provides students with a "meaningful whole, a total situation" (Williams, 1983, p. 169). According to Williams, even for highly verbal students, direct experience is essential for the development of important cognitive skills. Experiential learning stimulates original thinking and develops a wide range of thinking strategies and perceptual skills which are not promoted by books or lectures. Experiential learning also has the capacity to stimulate more personal involvement and draw students into a subject they might otherwise avoid or find dull. Trips outside the classroom (as in the original version of Suggestopedia where students were led "into the street" for language practice), laboratory experiments, the use of real objects and primary source material all offer opportunities for direct interaction with the phenomena being studied. Simulation and role playing place the students in a "real-life" situation and let them create the experience for themselves.

Simulation is a technique for creating experience through which students can learn about a subject. The teacher designs a situation which is analogous in significant ways to the phenomenon being

taught and assigns students roles. Rules are established which allow students to experience the constraints inherent in the situation and to gain insight into the subject. In simulation the students do not become someone else. The roles they play in the simulation are determined by their own reactions to the constraints and opportunities the situation offers. As a teaching technique, simulation is applicable to any subject. One can, for example, simulate a visit to a French café for a foreign language class and require the students to express themselves in French as would be necessary in Paris.

Role playing, like simulation, creates “direct” experience in the classroom. In role playing, the students take the part of other people and try to act as those people would do in a given situation. The students must imagine how the individuals would feel and behave. Generally speaking, they must know at least a certain amount about the persons whose roles they are playing in order to “perform” effectively. In the suggestopedic language class, students are assigned (or choose) “foreign” roles to play and they maintain these new identities (with accompanying biographies) throughout the course.

According to Williams (1983, p. 190), students come to class with a “two-sided mind.” Teachers must encourage them to use it, to develop both types of thinking (left and right brain) so that they have access to the greatest possible range of mental abilities. The role of the teacher and the classroom atmosphere s/he creates is to motivate and maximize student learning. “The richer the banquet we lay, the more students will partake and the longer they will stay at the table” (Williams, 1983, p. 194).

## THE ALPHA STATE

In *Suggestology and Outlines of Suggestopedy* (particularly in chapter 4, “Towards a General Theory of Suggestion”) there are scattered references to electroencephalographic investigations (as well as pulse and blood pressure measurements) of subjects under hypnosis, in a state of sleep, in the waking state and when executing yoga exercises. These investigations were linked to research into the subjects’ “reserve [or learning] capacities” (p. 179). While details of brain wave research are not always provided, Lozanov gives the results of research conducted at the Institute of Suggestology: “it can be concluded that hypermnnesia is not necessarily bound up with strenuous mental bioelectric activity and great strain. Hypermnnesia can be achieved in states of

concentrative pseudo-passiveness with an increased alpha rhythm” (p. 250).

At the Institute of Suggestology in the 1960s and 1970s, particular attention was paid to EEG (as well as pulse and blood pressure) investigations of suggestopedic students. (In contrast to Western researchers, Lozanov investigated the use of “alpha biofeedback” with normal subjects and in an educational setting). In chapter 5 of *Suggestology and Outlines of Suggestopedy*, there is a section entitled: “Suggestopedic Instruction and Cerebral Bioelectrical Activity” (pp. 232 ff). Attention at the Institute of Suggestology was focused on EEG analysis of students before the language class commenced, during class and before and after the special session for memorization of language materials. It was found that, following the special relaxation (or concert) session, alpha waves increased while there was a decrease in beta waves (p. 236). “The strongly marked increase in beta waves and reduction in alpha waves, typical of intensive mental work, were absent in the EEG of students during suggestopedic instruction in a foreign language. The changes registered were typical of mental work of low intensity...” (p. 239). In addition, it was found that “the concert state was characterized by the alpha rhythm increasing over its level before classes [began], and the beta rhythm dropping under its initial level” (p. 239). In the Lozanov thesis, there is no discussion of what causes the increase in alpha during the special session. However, alpha is linked to the bringing into play of the students’ reserve capacities and to improved memory and concentration.

It seems likely that Lozanov was aware of research in brain wave biofeedback going on outside Bulgaria in the 1960s and 1970s; he was invited to California in 1971, for example, by Barbara Brown, the author of *New Mind, New Body* and *Stress and the Art of Biofeedback*. It is not possible to say with certainty that Lozanov was directly influenced by American research in his “brain wave” investigations; however, one can say that, once again, educators and researchers at the Institute of Suggestology in the 1960s and 1970s were in tune with yet another “modern” area of research: brain wave (and, in particular, alpha) biofeedback.

In the 1960s and 1970s, particularly in the United States, a great deal of interest was expressed in research into biofeedback—said to be an ideal “drug-free” way of treating human illnesses because it made available information about biological activities to the individual concerned and evoked complex mental processes to change the body’s physiological activities and to exert learned control over “involuntary”

functions. (The number of researchers burgeoned in a few years from less than 10 researchers to more than 2000 active investigators in the biofeedback field. Early researchers included: Brown, Green, Mulholland, Kamiya, Budzynski, Murphy, Stoyva. In 1969 the Biofeedback Research Society was formed—renamed in 1976 the Biofeedback Society of America and in 1988 the Association of Applied Psychophysiology and Biofeedback). Coinciding with movements in “pop” psychology (as well as Transpersonal Psychology) and “holistic” medicine, a social revolution and the “hippy” movement, an increasing interest in Transcendental Meditation and Eastern religions as well as in psychedelic drugs and dream consciousness, plus a renewed interest in hypnosis, brain wave biofeedback received great attention in the media in the late 1960s and early 1970s. Excitement was generated by the fact that brain wave impulses, which elude our normal consciousness, are piped through EEG machine electrodes, amplified by delicate circuitry and finally translated into light, sound or some other medium that is accessible to the senses. Biofeedback and the EEG were said to be research strategies for exploring consciousness (or varying states of consciousness). The alpha brain wave, in particular, was linked to an altered state of consciousness—a new state of mind, one that was stress-free, revelatory of mind/body harmony and in tune with ancient (and mystic) spirituality.

Articles in Tart's *Altered States of Consciousness*, which was first published in 1969, included studies of changes in brain functioning during the altered states of consciousness (ASCs) produced by the practice of Zen and yoga. The adept practitioners of both these disciplines produced, during meditation, almost continuous alpha waves (normally associated with a state of relaxed alertness in ordinary subjects). In addition, Kamiya (1972) showed that ordinary subjects (but especially those with an interest in meditation, introspection, sensitivity training, good interpersonal relationships, dreaming, etc.)<sup>9</sup> could be trained, by conventional operant techniques, to produce an EEG pattern similar to that found in meditating Zen monks and yogis, viz., almost continuous alpha rhythm. Subjects reported the high alpha state as being one of general pleasantness and relaxation. In the popular press, the mood state of a subject was said to be changed by having the subject “turn on” his (her) alpha. Once “tuned into” him (her)self, almost anyone, it appeared, could learn to identify specific brain wave states and, in short order, learn to control them. The possibility of not only controlling brain wave activity but also that of influencing subjective feelings associated with this activity naturally

elicited a wave of enthusiasm among behavioral scientists (not to mention members of the general public). The popularity of brain wave research nurtured a cult of the "alpha high"; the alpha experience was idealized as an intrinsic good. Experts in EEG reported interesting correlations between the state of emotional set and consciousness, on the one hand, and the amount of alpha waves generated by the subject, on the other (Basmajian, 1989, p. 3). Since alpha was said to be a principal brain wave correlate of meditation, there was an enthusiastic popular belief that alpha wave biofeedback was a "shortcut meditation technique" (Brown, 1974, p. 326). The potential of biofeedback techniques for regulation and modification of mind and consciousness was said to be "enormous" (Brown, 1977, p. 146).

The original enthusiasm generated by the development of brain wave biofeedback stemmed in part from the belief that it might provide a royal road to higher (or even mystical) states of awareness or consciousness. After an initial period of euphoria, however, alpha enhancement training with biofeedback became increasingly controversial. The growing suspicion that something was not quite right with the earlier studies culminated in a flurry of critical analyses. These were directed both at the methodological inadequacies of the reported studies and their philosophical underpinnings. With respect to the latter, it was charged that much of the work, instead of being directed to a scientific understanding of alpha control, was using alpha enhancement as a pathway toward higher (or mystical) states of consciousness (Yates, 1980, p. 277).<sup>10</sup> The alpha experience was said to be not simply due to alpha enhancement but to such factors as suggestion, expectations, initial bias and experimental setting. (As reported in Yates [1980, p. 306], Plotkin stressed particularly the importance of suggestion and expectation in alpha experiments and the similarity of the situation created in many alpha studies to the one created in sensory-deprivation experiments). Attacks were delivered on the "cult of alpha" and the "alpha culture."

While the "new (exciting) age" of mind/body harmony did not really come into being, alpha biofeedback did not really lead to teaching people how to feel happy and serene and biofeedback therapy (described initially as "unprecedented" and "limitless") did not prove to be the universal panacea for which researchers had hoped, biofeedback can make individuals aware that they must take responsibility for the maintenance and control of their own health and it has proved useful in the treatment of organic illnesses and of psychological problems (as current research shows). Brain wave biofeedback has

been used to treat subjects with social and psychological problems, as well as psychosomatic illnesses (such as insomnia and muscle tension) and chronic pain—associated with migraine and tension headaches, for example (Hutchison, 1994). Biofeedback (including alpha conditioning) has played a significant role in developing a methodology for helping epileptics to achieve better management of their seizure conditions (Lubar, 1989, pp. 84 ff). Rehabilitation of physical function has been one of the major successes of biofeedback (Yates, 1980, p. 487); results of biofeedback training with disabled people have been “impressive” (Yates, 1980, p. 498).

Writing in the 1970s, Brown (1974, p. 387) stated that one of the most constructive uses of biofeedback may be in education. Biofeedback can be used in conjunction with teaching machines to alert the student to his/her optimal mind–body state for any given learning situation. Physical and mental attitudes more suitable for learning, as well as improvement of attention span by voluntary means, can be learned more readily via biofeedback.

Since the heyday of the 1960s and 1970s, biofeedback has been used for teaching in the classroom (Peper, 1979), to promote visual attention, to stimulate creativity, to induce a state of relaxed alertness. It has been used in education in conjunction with the reduction of stress levels and very often with those who have learning problems (Hutchison, 1994, chap. 30). EEG biofeedback is used to work effectively with children who experience attention deficit disorder (ADD) and other disorders of behavior. (This includes children who are hyperkinetic and/or learning disabled).<sup>11</sup> However, as can be seen from bibliographies in such books as Hutchison’s *Megabrain Power*, most of the current research in biofeedback is in the health area: psychiatric illness, alcohol and drug addiction, epilepsy, stroke, phobias, memory impairment, stress reduction, etc. As Hutchison (1991, pp. 94 ff) points out, it is much easier to get funds to do research for medical and therapeutic purposes than it is to explore the possibilities of using mind devices on perfectly healthy people for the purpose of stimulating mental excellence.

In recent years, there has been a plethora of consumer-oriented EEG devices, many linked with computers and/or combined with sound and light stimulation. (For example, the CAP scan [Computerized Automated Psychophysiological scan] and the IBVA [Interactive Brainwave Visual Analyzer] combine recent breakthroughs in computers, computerized electroencephalography and biofeedback (Hutchison, 1991, p. 152; Morrissey, 1996). In contrast to the 1970s,

these “mind machines” are small, portable, more affordable and user-friendly (Hutchison, 1991). These devices can not only observe brain wave patterns but can also induce relaxation and alter brain wave patterns without lengthy training. While many new devices appear with exaggerated claims and personal testimonies—as opposed to solid research data (Hutchison, 1991, 1994; Ostrander and Schroeder, 1991, chap. 19), “mind machines” have proved to be (or have the potential to be) effective tools for accelerated learning (Hutchison, 1991, 1994).

It is useful to examine (or reexamine) the area of biofeedback (including brain wave biofeedback) as it relates not only to health in the sense of “mind/body harmony” but also to an ideal learning state (the state of relaxed alertness), one that was most definitely sought by suggestopedic researchers and educators at the Institute of Suggestology in the late 1960s and early 1970s and one which is crucial today if students are to be prepared for the challenges of the twenty-first century.

The term “feedback” is of relatively recent origin, coined by pioneers in the field around the beginning of this century. Mathematician Norbert Wiener, a founding father of research in feedback, concisely defined it as a “method of controlling a system by reinserting into it the results of its past performance” (as quoted in Karlins and Andrews, 1972, p. 26). Biofeedback is simply a particular kind of feedback, feedback from different parts of our body such as the brain, the heart, the circulatory system, the different muscle groups, long believed to be outside the realm of conscious control. Biofeedback is essentially the return (the feeding back) of biological information to the person from whose body the information came.

Humans are regulated by two nervous systems: the voluntary and the involuntary. The voluntary, or somatic nervous system includes the nerve cells and fibers that serve the skeletal muscles. It is responsible for all arm, leg and jaw movement, for changing posture—in short, for all movement that we normally regard as deliberate or “consciously controlled.” The involuntary, or autonomic nervous system involves the eye pupils, heart, blood vessels, stomach, endocrine glands and all functions traditionally considered automatic or “beyond our control” (Karlins and Andrews, 1972, p. 34). Insofar as the brain is concerned, the very brain processes involved in patterned neural self-regulation are normally unobservable and not available to direct conscious experience (Schwartz, 1979, p. 57).

Biofeedback may be defined as the technique of using equipment (usually electronic) to reveal to human beings some of their internal

physiological activities or functions, normal and abnormal, in the form of visual and auditory signals, in order to teach them to exert voluntary control over their own internal somatic activities or functions (such as heart rate, blood pressure, muscle tension, brain waves) by manipulating the displayed signals. Most instruments developed for biofeedback have been designed so that the individual undergoing biofeedback training can see or hear (or both) the monitor of his/her selected biological activity more or less continuously. This technique inserts a person's volition into the gap of an open feedback loop (hence the name biofeedback). Unlike conditioned responses, the animal involved, here necessarily a human being, must want voluntarily to change the signals in order to meet certain goals (Basmajian, 1989, p. 1). Biofeedback is "the process or technique for learning voluntary control over automatically, reflexly regulated body functions" (Brown, 1977, p. 3).

To many researchers, the idea that individuals can learn to control a selected, unfelt internal body activity means that the individual can be "conditioned" to react in a specific way to a stimulus, i.e., to a signal containing the biofeedback information. In laboratory experiments and in some clinical applications, this approach to achieving "control" is brought about by giving the biofeedback signal every time the individual's physiological activity changes in a predetermined way. This process is called reinforcement and the signal is used to reinforce what the individual has learned. He (or she) is rewarded for having completed a performance, that of changing a selected physiological activity in a desired direction and his/her brain mechanisms must now search for relationships between performing correctly and the biofeedback signal that led him/her to the correct performance. According to Brown (1977, p. 15), the only useful result of biofeedback training would be that kind of voluntary control over body activity that can be invoked at *will* and when necessary or appropriate or desirable. (This control is similar to that exerted by the Indian yogis who are able to regulate or dominate their inner beings by slowing the heart beat or controlling breathing in closed spaces, etc.). With the exception of those suffering from severe behavioral disorders, the patient's (or subject's) training should reach a point where s/he can demonstrate control over the selected physiological function without the biofeedback signal.

According to Brown (1977, p. 146), "the ultimate biofeedback may well be brain wave biofeedback." Although the discovery was made (in the late nineteenth century) that electrical activity could be recorded from the cortex of the brain, it was not until the 1920s that

Hans Berger discovered the existence of brain waves and showed a relationship between brain wave patterns and mental states. (It is somewhat difficult to point out exactly when the first operant conditioning studies of the EEG were carried out, although, since the 1940s, changes in the EEG have been believed to be associated with different states of consciousness). The remarkable contribution of biofeedback to brain/mind research is its ability to produce relatively "steady states" (Brown, 1977, p. 146). (Previous to the advent of biofeedback, the continuously changing patterns of brain electrical activity and the ever-changing feelings, thoughts and emotions of the subjects made links between brain function and mental activity difficult). Once individuals learn voluntary control to sustain the presence of specific patterns or of specific elements of brain activity, such as alpha activity, the identification and precise definition of accompanying feeling states and mind activities becomes much easier. Brain wave biofeedback may be used for "disordered functions" or for producing, sustaining and controlling brain/mind states conducive to tranquillity and creativity. According to Brown (1977, p. 153), "EEG biofeedback has probably contributed more toward understanding the relationship between brain electrical activity and the products of brain activity labelled mental and emotional than any other prior scientific approach."

Brain electrical activity patterns are usually referred to as the EEG, the abbreviation of the recorded brain wave pattern called the electroencephalogram. (The electroencephalograph is a device for recording the electrical activity of the brain). EEG generally (or traditionally) implies the standard recording of brain electrical activity from eight or more electrodes or electrode pairs placed on the scalp according to a standard configuration. For each pair of electrodes the electroencephalogram has a channel of amplification and an ink-writing voltmeter that records on folding paper tape. Electrodes placed on the scalp pick up impulses that arise from the outermost area of the brain, the cerebral cortex. To record the electrical activity of deeper regions, needle electrodes can be surgically inserted into those specific areas. (Since EEG patterns recorded from different scalp areas over the brain can vary remarkably, considerable care must be taken in interpreting both the research and clinical results of EEG biofeedback). The complete system (of 21 electrodes) is used for routine EEG examination; in psychological research electrode placements are usually restricted to one or two sites (Yates, 1980, p. 270).

What we know about brain electrical activity patterns is almost totally dependent upon the instruments used to record them. Since

EEG patterns recorded from different scalp areas over the brain can vary remarkably, considerable care must be taken in interpreting both the research and clinical results of EEG biofeedback. Lester Fehmi's Brain Wave Biofeedback Synchronizer, for example, in contrast to devices which only monitor one or two of the brain's major lobes, is a multi-channel phase-sensitive biofeedback EEG, one that simultaneously monitors all the major lobes of the brain and signals when the user is in a state of whole-brain, in-phase synchrony (Hutchison, 1991, pp. 320–321). While traditional EEGs display only the frequency of the highest voltage they pick up on a specific location on the scalp, the Mind Mirror is said to take in, process and display the entire frequency spectrum in a logical and easily understood pattern (Hutchison, 1991, p. 175).

Throughout the history of EEG machines, attention has been focussed on relatively slow brain waves and, for the most part, on those slow, very large components that are signs of brain pathology. (Most EEG machines dampen the amplitudes beginning at about 30 Hz [cycles per second] and eliminate all brain electrical activity occurring above frequencies of 50 or 60 Hz). The rationale for limiting EEG recording to slow brain wave frequencies has been mainly the inability of recording pens to reproduce high frequencies; the impossibility of electronic circuitry to discriminate very low voltage, fast EEG activity; and the apparently relatively greater importance of the slow, high voltage waves for human activity.

Insofar as brain waves are concerned, it is mainly the rhythmic waves that have been labelled: beta, alpha, theta and delta. (Hans Berger, the pioneer of brain wave study, discovered alpha in 1929. The main thrust of clinical and experimental studies with the electroencephalogram [EEG] has been in the area of operant control of brain-wave activity, with particular emphasis on the production and control of alpha rhythm). When people are aroused and/or focus attention on the outside world or external events, they usually produce only beta frequencies. If they close their eyes and think of nothing in particular, they generally produce a mixture of alpha and beta. If they become drowsy and slip toward sleep, theta frequencies often appear and there is less evidence of alpha and beta. Delta waves are not normally present except in deep sleep. In approximate terms, delta waves are 1 to 4 Hz; theta are 4 to 8 Hz; alpha are 8 to 13 Hz (or cycles per second). "Beta" is generally used to indicate all EEG activity of (assumed) frequencies higher than that of alpha. As the term is used by different investigators, it can refer to rhythmic or nonrhythmic

EEG activity and to different frequency ranges (e.g., 13 to 28 or 28 to 40 Hz). In general, beta activity is quite low voltage and because of this and its close relationship to the characteristics of electrical noise in frequency and voltage, it is difficult to quantify precisely. Technically speaking, beta is not a smooth rhythm but a "flurry of electrical static" (Karlins and Andrews, 1972, p. 73).

Brain wave activity is said to be related to behavior. It is generally accepted that beta activity accompanies alert behavior, information processing and concentrated mental activity such as that involved in solving problems in mathematics. High beta activity is associated with complex cognitive tasks and is correlated with attentional or memory processes; lower beta activity is associated with anxious emotions. Beta descriptors (which have both positive and negative aspects) include: active, alert, anxious, energetic, excited, exhilarated, lively, restless, stimulated and tense (Lubar, 1989, p. 76).

Theta activity, which is slower than alpha, can be recorded from many portions of the cortex or from the cerebrum in both awake and sleeping individuals. On the average, theta waves are about one-half the frequency of alpha waves. They are sparse in the normal waking EEG pattern and are found most frequently during drowsiness and dreaming. Theta production is generally possible only with the eyes closed. However, theta activity can occur during alert behavior, generally sporadically, and can appear at moments of sudden insight or recognition of events in memory. Theta is often associated with day-dreaming or reverie and vivid visualizations and hypnogogic imagery. Delta waves, which have a lower frequency range, occur almost exclusively during the deeper stages of sleep and usually appear as single waves. Theta and delta thus represent slower rates of cortical synchronization than alpha. "Physically, the trip from beta to delta is a rhythmic unwinding; psychologically it is experienced as a quieting of the mind" (Karlins and Andrews, 1972, p. 74).

The alpha wave<sup>12</sup> is not the most dominant, largest or most prevalent brain wave but it does have the distinction of being discovered first (by Hans Berger in the 1920s, as mentioned above) and of being the most studied. Alpha appears to be a slowing down of electrical discord into a pulsating hum which sweeps regularly over the brain cortex, usually from front to back. The alpha rhythm is a rhythmic spindle between 8 and 13 Herz (Hz) which can be recorded best from the posterior portion of the human or cerebral cortex. (It is important for practitioners using biofeedback for altering EEG activity to realize that the EEG recorded with scalp electrodes in humans

are the tip of an iceberg [Lubar, 1989, p. 68]). According to Brown (1974, p. 313), one of the reasons why the most easily observed aspect of brain wave activity appears to be the alpha rhythm is that EEG recordings are generally done under conditions of relaxation. (A reclining chair is said to be a useful item of equipment. Many patients prefer to have the chair tilted to a semi-reclining position [about 45 degrees from the vertical] so that they have a good head rest [Stoyva, 1989, p. 174]).

Although alpha is defined as rhythmic EEG activity having a frequency of somewhere between 8 and 13 Hz, alpha frequency varies from person to person and it varies in the same individual depending on a number of factors, such as level of attention, state of consciousness, mood, etc.<sup>13</sup> The exact characteristics of alpha activity can also differ depending on the location of the scalp recording electrodes. Frequently alpha in the frontal and pre-central areas can differ remarkably from that found in the mid-scalp or occipital regions. Not only are there a host of different kinds of alpha, but there are many influences that affect what is seen on the EEG record. Just to name a few: the type of electrodes and their placement; the type of recording device; skull thickness; electrical environmental noise; genetic factors; personality; intelligence; conditions of stress and the individual's mode of reacting to stress; endocrine factors; physiological drives such as hunger and fatigue; attention; motivation; the amount of information the individual has about his (or her) brain waves, body and his/her task (Brown, 1974, p. 318).

The behavioral state most closely identified with alpha activity is relaxed wakefulness (i.e., an alert but relaxed state). This implies that the brain state is a receptive one, and that it is not actively engaged in any specific mental or emotional activity. Alpha activity can be present, however, during certain kinds of alertness and attention, if the stimulus is not truly novel (Brown, 1974, p. 323) or when a particular mental activity is habitual.<sup>14</sup> Alpha also appears when attention is focussed inwardly. On the other hand, alpha tends to disappear during mental work, alerting, orienting, dreaming, hunger, visual activity, emotional arousal and frustration. One of the first reported characteristics of the alpha rhythm was the fact that it would block when the subject was presented with any of a variety of sensory or attentional stimuli (Lynch and Paskewitz, 1979, p. 326). On the other hand, "alpha activity occurs in the feedback situation when an individual ceases to pay attention to any of a number of stimuli which normally block this activity" (Lynch and Paskewitz, 1979, p. 335). These stimuli

may be cognitive, somatic, emotional, etc. In addition to the feedback process, any other process by which these influences may be removed (as in the original passive or concert session in Suggestopedia) will result in increased alpha activity.

Reports of biofeedback studies continue to support neurophysiologically derived notions that the subjective feeling state during the presence of alpha activity in the EEG is a generally tranquil, comfortable, relaxed, pleasant feeling, although there may be occasional exceptions. (Alpha descriptors include: at ease, calm, composed, passive-like, peaceful, placid, relaxed, tranquil, uncritical and unfocussed [Lubar, 1989, p. 76]). Some people report the flow of considerable imagery, almost a day-dreaming reverie.<sup>15</sup> Subjects in the "alpha feedback" situation often report dissociative phenomena such as feelings of floating, being unaware of the immediate environment and distorted time perception (Lynch and Paskewitz, 1979, p. 333). The fact that, in general, the presence of alpha activity in the EEG and the absence of beta activity indicates a mental-emotional state of relaxed wakefulness is almost reason enough to suggest its use in individuals who complain of anxiety and tension and whose EEG shows an abnormally low content of alpha (Brown, 1977, p. 153); certain investigators feel that alpha biofeedback is appropriate as a stress-reduction measure, particularly for emotional stress (Brown, 1977, p. 187). One chief objective of alpha training is that, by learning to turn the attention inwardly, the subject naturally decreases the visual input of anxiety-related information (Brown, 1977, p. 240). Alpha's association with relaxed wakefulness is useful not only in therapy or self-exploration but also in stress-free learning. Alpha is ideal for learning new information, data, facts, material that one wants to be fully aware of and have readily available in waking consciousness (Hutchison, 1994, p. 211).

Concepts such as turning the attention inward, passive concentration, relaxing physically, not trying, emptying the mind (as in certain forms of meditation), encouraging the subject to invent mental strategies, are all useful for promoting "alpha" (Brown, 1977, p. 241). Alpha will sometimes increase to a marked extent in subjects who are just sitting quietly in a comfortable chair. Closed eyes or, if eyes are open, an environment with subdued lighting (or a dark room), as well as a state of (induced) relaxation are conditions in which alpha production is normally maximal and the individual bursts of alpha are frequent (Brown, 1977, p. 171).<sup>16</sup> However, alpha may also appear when the eyes are open. Move the eyes (i.e., the eye muscles) up and alpha appears; move them down and it disappears. (Biofeedback

researchers have tended to limit their recordings and feedback signals to the occipital scalp areas that overlie the interpretive visual cortex area, presumably because of the eye-alpha relationship [Brown, 1974, p. 328]). Alpha waves can be made to appear when the eyes are open if attention is turned inward, away from the outside world, if one learns to "observe without looking" (E. E. Green, A. M. Green and Walters, 1979, p. 128). (In contrast, studies have shown that the greater the complexity of the visual input, the stronger is the alpha blocking response). According to Rosenboom (1976, p. 12), listening to or performing "stable, non-moving musical drones" (i.e., repetitious, monotonous-sounding music) is almost always accompanied by the presence of "more than normal alpha." (Participation in a "drone sound" usually involves a kind of meditation which seems "logically connected" to the alpha state). It appears, however, that some type of "optimal level of arousal" exists for the occurrence of alpha activity. While, if the subject is too aroused, alpha activity will be diminished, if the subject becomes too drowsy, alpha will also be diminished (Lynch and Paskewitz, 1979, p. 330).

It can be seen, from an examination of the North American research on alpha biofeedback, that a number of the essential elements for producing the alpha state were an intrinsic part of the original version of Suggestopedia—especially of the original passive (or concert) session. The original suggestopedic concert session incorporated physical and mental (or psychological) relaxation: a relaxed posture and inner concentration or visualization (i.e., inward focussing). Students' eyes were closed during the original passive (or relaxation) session and they sat quietly in special chairs (with a 45 degree angle and a head rest). The language materials for memorization were read in a soft, soothing voice over a background of slow movements from baroque chamber music—i.e., slow-moving, repetitious and monotonous-sounding music. Students were told not to pay direct attention to the language materials being read but just to relax and listen to the music. Lighting was subdued in the classroom and the classroom atmosphere was calm and pleasant. Because of the "alpha state," students were able to memorize large amounts of language material effortlessly, often, it was claimed, to levels of hypermnnesia.

Since the new "mind machines" can be used to get students quickly and easily into the alpha state (Hutchison, 1991), what is needed, according to Morrissey (1996), is a fully computer-automated accelerated learning classroom where participants develop control over their brain wave activity through biofeedback training and where brain

wave states can be changed at desired moments in the teaching/learning cycle and the appropriate state prolonged, once it has been induced. Morrissey believes that tomorrow's classroom will be brain wave driven; teaching methods, styles, materials and the like will be determined by the brain wave activity of the learners. Brain wave technology equips educators with the means for detecting and/or confirming suggestive effects in the classroom through the collection and utilization of scientific data (Morrissey, 1996, p. 59).

In contrast to most other researchers in accelerated learning who subjectively evaluate their students' learning states, Morrissey (1996) is of the opinion that it is very important to reproduce the brain wave patterns which were operational during the original suggestopedic class and to verify these objectively with the appropriate equipment. With his system, called *brainwave biotek*, he shows that we can scientifically demonstrate and provide feedback of the effects which various suggestive means (dimmed lights, concert readings, use of special music, etc.) as well as various teaching strategies (games, songs, readings, etc.) have on students' EEGs and determine what effect those EEGs are having on intellectual performance and achievement. His research using the computer-based (and wireless) Interactive Brainwave Visual Analyzer (IBVA) shows that concentration, memory recall and classroom learning will be optimized if the instructor alternates cyclically between inputting information (especially during the concert session) with students maximizing alpha and their activating and elaborating upon the information while maximizing beta. (However, as Morrissey [1996, pp. 52–53] admits, more research is needed in such areas as memory expansion and long term retention of materials). In his foreword to Morrissey's book, *Ultimate Learning States*, Donald Schuster says:

Exciting possibilities exist. Can we at last duplicate Lozanov's stimulating report of hypermnnesia (extraordinary memory)? Can we repeat it on demand and specify its conditions? Can we train classroom teachers to use it in public education? Potentially these questions can be answered affirmatively, but it's up to us as researchers and educators to get busy doing the research.

## NOTES

1. See also Paul MacLean's theory of the triune brain: *A triune concept of the brain and behavior* (1973). This theory classifies the evolutionary development of the mammalian brain into three phases: reptilian brain,

paleomammalian brain and neomammalian brain. The old mammalian brain consists of the limbic system which controls emotions and feelings; the neocortex, divided into two hemispheres, deals basically with external, environmental events. According to MacLean's theory, creativity and emotional functions are localized in the limbic system rather than in the right hemisphere in hemispheric specialization. Lozanov (1978, pp. 255 ff), mentions the involvement of the cortex and subcortex as well as the two brain hemispheres in the suggestopedic process of instruction.

2. While speech and phonetic analysis appear to be restricted to the left hemisphere, the right hemisphere has greater linguistic abilities than earlier researchers assumed. The right hemisphere is said to be responsible for intonation patterns, emotional tone, melody, metaphor and humor (Springer and Deutsch, 1993, pp. 159–161). While it does not decode words by a phonetic analysis of the sounds, it appears to recognize them by their spatial (sight) or acoustic (listening) patterns (Williams, 1983, p. 24).
3. In a procedure called dichotic listening, subjects are fitted with headphones through which each ear hears a simultaneous, competing stimulus. The subject is asked what word or stimulus was heard and the answer tells the experimenter which ear, and thus which hemisphere, had the advantage for processing that stimulus (Williams, 1983, p. 21).
4. The evidence from both split-brain and brain-injured patients indicates that, in order to perform visuo-spatial tasks successfully, an individual relies on the contributions of both hemispheres (Williams, 1983, p. 20).
5. These dichotomies have been disputed in the sense that they constitute an oversimplified view of hemispheric functioning (Williams, 1983, p. 24). Williams (1983, p. 26) substitutes the following "dichotomies" for the use of educators: (a) left-hemisphere processing: interested in component parts—detects features; analytical; sequential processing, serial processing; temporal; verbal—encoding and decoding speech, mathematics, musical notation; (b) right-hemisphere processing: interested in wholes and *gestalts*—integrates component parts and organizes them into a whole; relational, constructional, pattern-seeking; simultaneous processing, processing in parallel; spatial; visuo-spatial, musical.
6. The perception of music offers an interesting example of how the brain operates. There is some evidence (Williams, 1983, p. 27) that it is not the stimulus—the music—that determines where it will be processed but the listener's approach to the stimulus. Listeners who are relatively unsophisticated in music will show a left-ear (right hemisphere) advantage, but those who are quite "sophisticated" are likely to show a right-ear (left hemisphere) advantage. One can hypothesize, according to Williams, that the naïve, untrained listeners respond to the overall contours of the music, to its "*gestalt*," while the educated listeners process the same sounds

sequentially in a more analytical manner. Researchers cited in Rosenboom (1976, pp. 71–72) have reported a left hemisphere (right ear) dominance in musicians who listen “analytically” to musical sequences and a right hemisphere (left ear) dominance in non musicians who listen to the same sequences “holistically.”

7. Schuster (1986, p. 78) reports that significantly better recall of words is achieved when words are “imaged” during the learning process.
8. For the use of music as a memory-training and linguistic-structuring device in the Tomatis Method, see Chapter 11.
9. Coincident with the development of alpha biofeedback was the study of brain electrical activity as related to susceptibility to hypnosis. People with a fair amount of alpha in the EEG were found to be those who were most susceptible to hypnosis. Research studies conducted in the late 1960s reported that high susceptibles (i.e., those individuals who are very suggestible) produced more waking alpha density than nonsusceptibles. De Pascalis (1989) found that high hypnotizables generated significantly greater alpha magnitude in both hemispheres than the lows during an eyes-closed baseline condition and during a task condition.
10. According to Basmajian (1989, p. 3), during the 1970s, the shape of biofeedback changed dramatically. The most dominant form, which received the greatest publicity in the late 1960s, alpha feedback, virtually dried up as a scientifically defensible clinical tool. Where it is still used by serious clinicians, it is combined with other techniques to achieve relaxation.
11. There does seem to be evidence that children who are learning disabled and/or hyperkinetic often demonstrate EEG abnormalities. In addition to the neurological signs, there are many behavioral signs that are found in children who experience hyperkinesia and/or learning disabilities. These include speech difficulties, problems in balance and coordination, abnormalities in muscle tone, and overall clumsiness in both athletic and nonathletic activities (Lubar, 1989, p. 77; see also Hutchison, 1994).
12. As reported by Lynch and Paskewitz (1979, pp. 326–327), the official definition of alpha, according to the terminology committee of the International Federation for Electroencephalography and Clinical Neurophysiology, is: “alpha rhythm: rhythm, usually with a frequency 8–13 c/sec in adults, most prominent in the posterior areas, present most markedly when eyes are closed, and attenuated during attention, especially visual.”
13. Researchers have divided subjects as follows: (a) those with no alpha, even with eyes closed and their mind at rest; (b) those with alpha only with their eyes closed and their mind at rest; (c) those with alpha present even with their eyes open and their mind active. Alpha activity is mediated by a whole host of factors and the likelihood of ever controlling

or eliminating all these factors to observe only simple alpha conditioning is extremely small (Lynch and Paskewitz, 1979, pp. 328–329).

14. It is reported by Brown (1977, p. 150) that Einstein maintained an EEG pattern with considerable alpha while solving moderately complex mathematical problems but that, when he was confronted with a new kind of problem, his alpha disappeared. According to Rosenboom (1976, pp. 12–13), during periods of repetition or reproduction of highly rehearsed patterns, one observes associated increases in alpha in musicians. It is possible that the “production of alpha by a performing musician is related to his ability to concentrate on the internal state, and, through disciplined practice, disengage himself from the need to perform physical orientation in order to produce the ‘right’ notes or music.”
15. Kamiya (1979) found, on the other hand, that the presence of alpha was reported as being associated with less visual imagery; however, subjects reported feeling more relaxed, less attentive to anything in particular and less intense. “The subject’s feelings during alpha-increase trials were described in general as being relaxed though alert, calm, and sometimes pleasant. The alpha-decrease trials were described as more involved with close-up visual imagery and with more tension, anxiety, and fatigue than the increase trials” (pp. 291–292).
16. The average human being exhibits alpha activity (which is only a relatively small part of the brain’s electrical components manifest in the EEG pattern) only between one and perhaps 20 per cent of the time when the eyes are open, and anywhere from 35 to 75 per cent of the time when the eyes are closed; alpha rarely occupies more than 50 per cent of the total EEG activity (Brown, 1977, p. 234). “It is a simple fact that alpha becomes maximal in amount when the eyes are closed” (Brown, 1977, pp. 238–239).

**Part III: Unconscious  
Assimilation—Related Methods**

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## CHAPTER 9

# Soviet Hypnopedia

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According to his original thesis on Suggestology, Dr. Lozanov and his colleagues at the Institute of Suggestology expressed interest in, and conducted experiments on Soviet-inspired hypnopedia (or sleep-learning) in the late 1960s.<sup>1</sup> Very few details are (or have been) provided on these experiments and implication is made in the Lozanov thesis that sleep-learning did not prove to be as effective as Suggestopedia for the learning of foreign languages. However, in spite of Lozanov's written or oral claims that Suggestopedia is quite different from Soviet hypnopedia, an examination of the two systems reveals that there are some very important similarities between them. It would appear that Lozanov and his colleagues were very much influenced by Soviet sleep-learning—at least in the initial stage of their experiments.

Both Suggestopedia and Soviet sleep-learning are based on the idea that the acquisition of information can occur in those states which are considered to be below the optimal level of consciousness. Information can be absorbed when we are not fully awake and/or when we are merely paying indirect attention to a learning source. The concept of "sleep-learning" is based on the audio-verbal learning that occurs during reduced conscious awareness—hence the name "hypnopedia," from the Greek *hypnos* (sleep) and *paideia* (education or teaching). This period of "reduced conscious awareness" corresponds, according to Soviet researchers, to the period of paradoxical (or light) sleep that usually occurs just as one is falling into a deep sleep after going to bed and just before one awakens in the morning. The original suggestopedic language class comprised a special session which provided for memorization of the lesson material at an unconscious level. The

two-part suggestopedic session took place while the students were (a) in a state of relaxed alertness and (b) in a deeper state of relaxation (with eyes closed), a state bordering on sleep. Scientists have discovered that both so-called paradoxical sleep and a relaxed, meditative state are characterized by an increase of alpha waves in the brain (Rubin, 1971, p. 25; Lozanov, 1978, pp. 232–250). Both the suggestopedic day-time session and the hypnopedic night-time session promote the unconscious assimilation of lesson materials while the students are in an “alpha” state.

As initiated and developed in the former Soviet Union by such researchers as A. M. Syvadoshch in Leningrad and L. A. Bliznitchenko in Kiev, sleep-learning or hypnopedia was intended to be used in conjunction with regular daytime classes, in such academic subjects as foreign languages.<sup>2</sup> During the hypnopedic session, students in groups of 12 or so would hear, repeated over and over, elements such as paired associates of foreign language vocabulary that they had already studied in class; in the former U.S.S.R., hypnopedia or sleep-learning has been used for the learning (or rather the “overlearning”) of “familiar” material. In addition to hearing the material repeated over and over during a period of some 30–50 minutes at night just before falling into a deep sleep and for some 30 minutes in the morning just before fully awakening, students in hypnopedic experiments were required to listen, read, listen again and loudly repeat the appropriate sleep-learning program in a fully awake state, before the lights were turned out. Like Soviet hypnopedia, the original version of Suggestopedia incorporated a special session for memorization of previously studied materials into what might be termed a conventional language class.

Both the hypnopedic and the original suggestopedic sessions are to be used for the rote memorization of basic factual materials. While the original suggestopedic session was utilized for the “reinforcement” of language dialogues which had a narrative or anecdotal content, hypnopedic sessions were (and are) normally confined to the memorization of words or short phrases; narrative passages, stories, discussions and the like are considered to be unsuitable for hypnopedic recordings (Rubin, 1971, p. 69). Reasoning, an essential component in learning, cannot be taught by hypnopedia (or by the original suggestopedic session).

In their presentation of language material, both Soviet sleep-learning and the original suggestopedic session use the principle of paired associates. A typical hypnopedic lesson contains between 20–50 paired

associates or information units, each one expressing an explicit fact within the context of a given subject. In the case of foreign languages, the usual items to be found in sleep-learning lessons are foreign language vocabulary. A specimen lesson on "driving in French" might contain the following items:

- |                  |                 |
|------------------|-----------------|
| 1. The motor car | L'automobile    |
| 2. The motor bus | L'autobus       |
| 3. The taxicab   | Le taxi         |
| 4. The motorist  | L'automobiliste |
| 5. The chassis   | Le châssis      |
| 6. The body      | La carrosserie  |

A sample lesson of forty German verbs might commence as follows:

- |             |          |
|-------------|----------|
| 1. To eat   | Essen    |
| 2. To smoke | Rauchen  |
| 3. To think | Denken   |
| 4. To speak | Sprechen |
| 5. To tell  | Sagen    |
| 6. To play  | Spielen  |

As in the above lists (and as in the original suggestopedic session), hypnopedic lessons first present the cue, or the translation in the mother tongue and then the word or expression in the foreign language (Rubin, 1971, pp. 73 ff). (In contrast to Suggestopedia, Soviet hypnopedia printed the cues on the left-hand side of the page and the foreign language items on the right-hand side).

Hypnopedic lessons are kept relatively short—three to six minutes—as the same lesson is repeated some 10–12 times during the relatively limited duration of hypnopedic sessions in order to "fix" the contents of the material in the memory. (Suggestopedia does not involve [or perhaps necessitate] as much repetition but nonetheless it does use repetition as one of a number of aids to memorization).

Both the original suggestopedic session and Soviet sleep-learning utilize rhythmic presentation of material. The training material for a given hypnopedic lesson unit contains paired associates or short phrases which have to be presented rhythmically when they are recorded. The average recording time of a given hypnopedic information unit can vary between three and six seconds; the paired associates must be separated from each other by a pause of approximately five seconds; the items within a given paired associate should also be divided by an inter-pair pause of one to one and one-half seconds.

Hypnopedic Information Unit		Total Time Taken
Telephone (1-1½ seconds pause)	Fernsprecher	2½ seconds 5-second pause
Is it you? (1-1½ seconds pause)	Sind Sie es?	3½ seconds 5-second pause
What is the name? (1-1½ seconds pause)	Wie ist der Name?	4 seconds 5-second pause

On this basis, one should be able to program approximately seven to eight hypnopedic information units to be recorded in 60 seconds and a hypnopedic lesson of five minutes' duration can contain approximately 35-40 phrases or paired associates (Rubin, 1971, pp. 70-71).

In the original suggestopedic session, a steady, constant rhythmic pace was maintained throughout; each word group (as we have seen) was read during a time span of eight seconds (translation: two seconds; foreign language phrase: four seconds; pause: two seconds); three word-groups were read in 24 seconds. Each page of dialogue involved two minutes and each ten-page dialogue involved 20 minutes of reading. It is entirely possible that the eight-second cycle in Suggestopedia was developed to facilitate the blocking out of vocabulary items over baroque music. The 20-minute session, as has been noted, corresponds to the "ideal" meditation period in yoga.

Both Suggestopedia and Soviet sleep-learning emphasize the importance of intonation or tone of voice as well as rhythm in the presentation of the material for memorization. Intonation has been an essential component of Soviet hypnopedic as developed by Bliznitchenko. As previously mentioned, Lozanov states in *Suggestology and Outlines of Suggestopedic* (pp. 196-197) that the rhythmically correct intonational presentation of the suggestopedic program ensures, to a high degree, the memorization of the program.

According to Bliznitchenko, the perception of verbal signals in a state of drowsiness and/or light sleep is a slow process compared with the perception of speech in the fully alert and awake state.<sup>3</sup> The decrease of cortical vigilance during the hypnopedic session warrants slowing down the tempo of hypnopedic speech. The slower speaking

rhythm of hypnopedic texts (some 10–20 per cent slower than normal speech) is one of the elements that has to be considered in their intonation.

In hypnopedic intonation, there is an absence of any abrupt acceleration or deceleration in the tempo of delivery—rhythmic variations which, in ordinary speech, would be important for conveying the meaning of what is being said. Bliznitchenko notes that, in hypnopedic speech, physiological pauses occur more frequently than in ordinary speech. The absence of overfalls in basic tonal frequency and intensity of utterance is conducive to sleep. The steepness of the stimulus wave, its abruptness and inconsistency are, by contrast, stimulating or “irritating” factors.

It was Bliznitchenko who proposed the elimination of “strong stimulatory elements” in the intonation of hypnopedic speech by the filtering out of the high-frequency components. Broken intermittent sounds have an extremely arousing influence and are, moreover, unpleasant. Such sounds are more tiring than monotonous and continuous sounds. By the same token, a loud sound, with an oscillation of large amplitude, and a high sound, with more frequent oscillations, constitute relatively strong stimuli. Any abrupt transition of sound from faint to loud and from low to high has an arousal effect. However, while a rising interval is a strong stimulus, a falling interval is relatively weaker, with a possible calming effect. According to Bliznitchenko’s observations, a falling interval has a tranquillizing influence which does not awaken or arouse the students.

In the intonation of hypnopedic texts, an even frequency level should be maintained. The intonation should be clear and audible; the voice should be pleasant but also neutral or impersonal, even monotonous. Through repetition of the same items, the voice may become softer, to the level of whispering. The frequency range of hypnopedic speech is relatively narrow whereas it is considerably wider in ordinary “unemotional” speech. The intonation of Soviet hypnopedic speech is characterized by a frequency band of 120–200 Hz for both male and female voices.

The time period allotted to the hypnopedic session is lengthier than that allotted to the original suggestopedic session: 40–50 minutes at night plus 30 minutes in the morning for hypnopedica versus 40–45 minutes at the end of the class for Suggestopedia. (The second, or Gateva variant of Suggestopedia has, however, as we shall see, a much longer session). However, the formats of the hypnopedic and original suggestopedic sessions show a number of parallels and, in particular,

the use of "active" and "passive" sessions, i.e., active concentration on the text followed by inner meditation on the text.

As outlined by Rubin (1971, pp. 86-87), the Soviet sleep-learning session has the following pattern:

### **Pre-Sleep Introductory Lesson**

Students listen to the audio-program in bed while they are still fully awake (first trial) and then they read, listen and loudly repeat the audio-program after the instructor (second trial). This procedure lasts approximately 10 minutes.

### **Repetition of Lessons while Falling Asleep**

Students fall asleep in their dormitories while the program is being transmitted with gradually decreasing volume. The phonation of the training or lesson material continues for another 40-50 minutes.

### **Pre-Awakening Lesson**

In the morning, 20-30 minutes before the students are expected to awaken and arise, the audio-program is transmitted again with gradually increasing volume.

Time	Sequence of Events
21:45	Beginning of the pre-sleep introductory lesson. The broadcasting of the audio-program begins on a loud speech volume of 45 decibels.
22:00	Lights out. Termination of the pre-sleep introductory lesson.
22:05	Beginning of the repetitious broadcast of the audio-program; the volume is decreased to a quiet speech level alternating between 20 and 30 decibels.
22:25- 22:50	Sleep affected by auditory stimulation. There is a further decrease of the volume by 10 decibels; the volume alternates between 10 and 20 decibels.
22:50	Termination of the audio-program.
23:00- 6:15	Sleep without the effects of auditory stimulation.

- 6:15 Beginning of the second broadcast of the evening lesson at a low volume alternating between 10 and 20 decibels.
- 6:25 Increase of the volume by 10 decibels; the volume alternates between 20 and 30 decibels.
- 6:35 A further increase of the volume to 40 or 45 decibels.
- 6:45 Lights on. Termination of the second audio-program.
- 6:50– Wake up. Students get up and get dressed.
- 7:00

The active and passive parts of the original suggestopedic session may be said to correspond to the “Pre-Sleep Introductory Lesson” and the “Repetition of Lessons while Falling Asleep,” respectively. During the original active session in Suggestopedia, it will be remembered, the students concentrated their attention on the text while the teacher read the word-groups or phrases with three different intonations. During the passive or concert session, while the teacher read the text in a soft, soothing voice over a background of slow movements from baroque chamber music, the students closed their eyes and visualized the scene the language dialogue described.

Researchers in Soviet hypnopedia, like their counterparts in Suggestopedia, have claimed that memory (or memorization of material) is improved by their special sessions and that, far from suffering any ill effects from learning in a so-called “altered” state of consciousness, students’ health actually improves. When combined with positive suggestions for pleasant learning, proper motivation on the part of the students, a special three to five day conditioning period and regular classes in the appropriate subject, Soviet hypnopedia is said, by its advocates, to improve memorization and performance and to cut down instruction time by one-half. (Original statistics quoted for Suggestopedia were that this method speeded up learning 5–50 times. American educators have found that, when used in a positive classroom atmosphere by a good teacher, suggestopedic techniques improve learning by 2–3 times [Bancroft, 1978b, p. 169]). According to F. Rubin, the Soviet sleep-learning method utilizes but a short period of paradoxical or light sleep—some 60–90 minutes from an average pattern of more than eight hours per night—and does not adversely affect the health of individuals who have no medical problems when they begin the program (Rubin, 1971, p. vii). It has also been claimed by Soviet authors that the adaptation to the requirements of participating in a group course in hypnopedia actually improves sleep as the

student's nocturnal behavior is subjected to a certain disciplinary regimen. (According to its adherents, Suggestopedia not only improves memorization of lesson materials but also improves students' health).

In the light of the similarities between Soviet sleep-learning and the original version of Suggestopedia—in particular between the hypnopedic and the suggestopedic sessions for unconscious assimilation of lesson material—it would appear that Dr. Lozanov and his colleagues at the Institute of Suggestology were influenced by Soviet hypnopedia, at least in the early stages of their experiments in the 1960s. Both Soviet sleep-learning and the original version of Suggestopedia present lesson material in the form of paired associates and utilize repetition, rhythm and intonation as aids to memorization. Most importantly, both systems are based on the idea that learning (i.e., rote learning) can occur not only in a wide-awake state but also in a state of reduced conscious awareness or indirect attention.

## NOTES

1. Some references to Soviet sleep-learning remain in the official English translation of Lozanov's thesis, *Suggestology and outlines of Suggestopedya*, p. 76; p. 91.
2. The first scientific research on hypnopedia in the former Soviet Union was carried out by A. M. Svyadoshch in the late 1930s. In Kiev, at the Ukraine Academy of Sciences, under the direction of L. A. Bliznitchenko, wide-scale research on hypnopedia commenced in the mid-1960s. Researchers in the former U.S.S.R. have been particularly interested in the application of hypnopedia to the assimilation of speech and the memorization of foreign languages. See, in this regard, Rubin, 1968.
3. Material on the intonation of hypnopedic texts is taken from *Learning and sleep* (Rubin, 1971, pp. 90–96).

## Sophrology and Memory Training

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In contrast to Soviet hypnopedia, there is no evidence whatsoever that Sophrology influenced the development of Suggestopedia. Indeed, it would appear that, in the 1960s, two medical doctors, Georgi Lozanov of Bulgaria and Alfonso Caycedo, of Colombian origin but resident in Spain at the time, discovered independently one of the other that certain yogic techniques of physical and mental relaxation could be used to produce a state of analgesia, or relief from pain, on the one hand, and a state of hypermnesia, or greatly improved memory and concentration, on the other.<sup>1</sup> While in Sofia, at the Institute of Suggestology headed by Dr. Lozanov, a team of experts, led by Aleko Novakov, combined yoga relaxation and verbal suggestion with the direct method to produce a unique system of foreign language teaching, at the Instituto Alfonso Caycedo in Barcelona, research in Sophrology, the system founded by Dr. Caycedo, was based on techniques derived from the ancient East, in addition to hypnosis, verbal suggestion and autogenic therapy. (The word “sophrology” combines the Greek words *sos* [sound], *phren* [mind] and *logos* [study] to mean the study of a sound mind or a harmonious consciousness).<sup>2</sup>

While most work in Sophrology has been done in medicine (especially in obstetrics and psychotherapy), its techniques have been applied to fields as diverse as sports and pedagogy. Educators (particularly in Spain, France and in such South American countries as Colombia) have taken from Sophrology its special voice training (*Terpnos Logos*) and its techniques of mental and physical relaxation (including breathing, visualization and concentration exercises) which,

like those originally used in the suggestopedic session(s), promote hypermnnesia and creativity. Like Suggestopedia, Sophrology has been applied in pedagogy to subjects like foreign languages which require, at least initially, the memorization of large amounts of basic factual materials. Within the context of Sophrology, Caycedo has developed a memory training system which is very similar in its basic structures to the original suggestopedic session.

Like the psychotherapeutical method espoused by Dr. Lozanov and described in his thesis, Dr. Caycedo's system of Sophrology emphasizes holistic and prophylactic medicine. The patient is considered not as the sum of one or more suffering organs but as a human being in a temporary state of illness; (s)he is treated as a unity; mind and body are considered as one. The doctor or therapist (and these ideas are projected into education) is not merely a prescriber of medicines or remedies but a collaborator, either with the individual patient or with the individual as part of a group. While the doctor or therapist is very much an authority figure, the patient must take responsibility for his/her own well-being. As in Lozanov's psychotherapeutical system, the patient in Sophrology undergoes anamnesis: an interview bearing on his/her past, professional situation and reasons for undergoing therapy. The method is explained and its procedures outlined. The patient is guided through techniques of physical and mental relaxation, referred to as simple sophronisation, followed by desophronisation or "coming out." The session concludes with what is termed a post-sophronic discussion, or dialogue between therapist and patient.

Sophrology stresses the importance of the personality of the therapist (or teacher) in much the same way as Suggestology/Suggestopedia. As we have seen, Lozanov emphasizes the authority of the doctor (or teacher) and the "infantilization" or spontaneity and confidence of the subject. Sophronic alliance is the term used to describe the special relationship, or pact of confidence, which exists between the sophrologue and the patient or student. As in Suggestology, the relaxed but nonetheless authoritative attitude of the sophrologue is considered to be a very important part of the treatment process—especially in dealing with patients suffering from psychosomatic illnesses. Suggestology talks about the role of the environment, both social and physical, using the term "double-planeness." Caycedo considers the milieu, which must be calm and tranquil, to be an essential factor in treatment or pedagogy. Sophrology is considered by its practitioners to be not only a science and a therapeutical system but also a philosophy, a way of life and an art (Boon, Davrou and Macquet, 1976, p. 76). One is

reminded of Lozanov's belief that the teacher and the physician must become artists in their chosen profession.

Lozanov stresses the importance of intonation and rhythm in the therapeutical or pedagogical process. Sophrology devotes a great deal of attention to special voice training: the correct positioning of the voice (as in yoga), together with the proper rhythm of presentation. "All the sophrologue has to do in order to obtain the sophronic state [the state of relaxation] is to use the *Terpnos Logos* with its rhythm and soft, monotonous intonation" (Boon *et al.*, 1976, p. 126). The therapist's persuasive, suggestive voice is instrumental in bringing about the state of sophronisation (or altered state of consciousness) in the patient during the appropriate exercises of relaxation. As in Soviet-inspired psychotherapy, the voice in Sophrology is considered to be a stimulus capable of provoking emotional and physiological reactions in the patient.

As mentioned above, the special term chosen for the sophrologist's voice is *Terpnos Logos*. Like the term Sophrology, *Terpnos Logos* comes from the Greek, more specifically from Homer who spoke of the epode (or words with therapeutic effect) which can be divided into three parts: magic words, mythological words and the *Terpnos Logos*, sung or spoken. In one of his dialogues, Plato is said by sophrologists to lay the foundation for "verbal psychotherapy." In the dialogue between Socrates and Charmides, Socrates agrees to cure the young man of a violent headache with the aid of a certain plant and a certain epode or incantation. This method of treatment comes from a doctor in Thrace who said his king affirmed that one must not treat the head (or body) without treating the soul. As the source of all good and evil, the soul must be nurtured if the body is to be in good health. The soul is cured by incantations (Boon *et al.*, 1976, p. 77).

Plato explains how the *Terpnos Logos*, a special kind of voice—soft, monotonous, monochord like the single string of an instrument—acts on the spirit by producing the sophrosynic state—a state of calmness, tranquillity and supreme concentration.<sup>3</sup> In Epidaurus, one of the treatments used in the sanctuary of Asclepius, the Greek god of medicine, consisted of placing the sick in a tholus (or round building) and having the priest-doctors chant positive healing suggestions through holes in the walls, just behind the patients' heads, during their sleep.

The physical and mental relaxation exercises used in Sophrology appear much more elaborate than the ones Lozanov and his staff probably used to train students and/or treat patients in the late 1960s

and early 1970s at the Institute of Suggestology. Nonetheless, the Sophrology exercises, which are used for treatment as well as for preventive medicine, are largely based, like Lozanov's, on yoga and Schultz' autogenic therapy and have the same purpose as Lozanov's original ones—the integration of the conscious and the unconscious, the linking of mind and body, the promotion of relaxation, on the one hand, and the concentration (or fixing) of attention, on the other.

Sophrology exercises are divided into two broad categories: "passive" methods and "active" methods. (The terminology reminds one of the "active" and "passive" parts of the original suggestopedic session). Passive methods in Sophrology include: simple sophronisation, intrasophronic activation, progressive sophro-acceptance, synchronic sophro-respiration. Active methods are dynamic relaxation techniques of the so-called first, second and third degree. Let us look briefly at some of these methods.<sup>4</sup>

## PASSIVE METHODS

### 1. Simple Sophronisation (*Physical and Mental Relaxation*)

The subject assumes a comfortable, immobile position, usually stretched out on the floor, although (s)he can also be sitting or even standing. To promote concentration, the sophrologue asks him (or her) to breathe deeply once or twice and to close his/her eyes. The subject is then asked to relax, in turn, the key parts of the body, beginning with the face, and moving downward. Once the appropriate state of physical relaxation has been achieved, the subject is asked to go deeper, progressively deeper, until (s)he reaches an altered state of consciousness, intermediate between sleep and wakefulness. He (or she) "goes deeper" while noting all possible modifications in colors, sounds, etc. The subject is then asked to be conscious of his/her body in this physically and mentally relaxed state and to note the profound state of well-being (s)he experiences. The sophrologue tells the subject that each time (s)he practices this simple method of relaxation (s)he will improve his/her mental and physical health.

Following one or two minutes' silence, the process of desophronisation begins. This "coming out" is performed in four stages: deep breathing during which the subject comes back "to the surface"; movements with feet, hands and face which "bring back" these three areas of the body; stretching of other body parts as if the subject had just had an excellent night's sleep; eyes open. The desophronisation is

followed by a dialogue during which the subject comments on his/her sensations and feelings during the period of sophronisation and desophronisation. Using cassette recordings, the patient will perform these exercises two or three times a day at home, preferably before meals so as to avoid post-repast sleepiness. After a week or so, the subject will pass to the next stage of therapy: intrasophronic activation.

## **2. Intrasophronic Activation**

This stage will be realized with the help of Schultz' autogenic training exercises. During the week following simple sophronisation, once the subject has reached an altered state of consciousness, the sophrologue adds the perception of heaviness of the various parts of the body. The following week, the sensation of warmth will be added; the week after that, the subject will be trained to perceive his/her heart beat. The week following, the subject will be trained to breathe properly—from the diaphragm—and to be aware of his/her breathing. (Proper breathing is considered extremely important for mental relaxation). Each time (s)he breathes out, the subject will "go deeper" into his/her consciousness. After five weeks of training with simple sophronisation and its various activations, the perception of warmth at the abdominal level will be added (this is considered essential for improved blood circulation), as well as the sensation of coolness of the forehead. Simple sophronisation, with its various intrasophronic activations, serves as the basis for all other sophrological methods. As verified by the electroencephalogram (EEG) and the electromyogram (EMG), results have been excellent; the subject becomes more aware of his/her faculties of concentration and rediscovers his/her body, physical sensations and perceptions.

The so-called passive methods evolving out of simple sophronisation with its various intrasophronic activations have been classified by Dr. Caycedo into three categories: (a) those acting on the present: simple sophronisation, sensorial sophro-substitution and synchronic sophro-respiration; (b) those acting on the future: progressive sophro-acceptance, serial sophro-correction, sophro-liminal protection and projective sophro-stimulation; (c) those directed towards the past: simple sophromnesia, free sophromnesia and oniric sophro-association. The sophronic alliance between therapist and subject is essential in all variations of sophronisation.

Certain of these methods are rarely used: serial sophro-correction, simple sophromnesia, oniric sophro-association and projective

sophro-stimulation. The normal therapeutic sequence is: simple sophronisation, intrasophronic activations, progressive sophro-acceptance, synchronic sophro-respiration, sophro-liminal protection, sensorial sophro-substitution. The therapy concludes with the so-called "integral method" during which the sophrologue integrates the most pleasant aspects of the treatment (according to the sensations of the patient) with the subject's aspirations in his/her professional and personal life.

### **3. Progressive Sophro-Acceptance**

Once the state of sophronisation has been reached, the sophrologue asks the subject to imagine a positive situation which will take place in the near future, in an ideal setting and at a preferred hour of the day. The subject will try to visualize as many details of this ideal scene as possible (colors, objects, etc.). The sophrologue asks the subject to put himself (or herself) in this ideal setting, alone or surrounded by relatives and friends; when (s)he has done so, (s)he is to raise his (her) index finger. The subject is then asked to become aware of a feeling of well-being in this situation, to appreciate the pleasant sensations experienced, the harmony which exists between self and surroundings. Thanks to daily training (with cassette recordings), the subject learns to replace negative sensations with positive ones. The pleasant feelings and sensations of the "ideal scene" are transferred to the present. (This method is frequently used in obstetrics, in sports training and in exam preparation).

### **4. Synchronic Sophro-Respiration**

This method uses respiration as a means of auto-conditioning and serves as a basis for sophro-liminal protection. In a state of sophronisation, the subject concentrates on his/her breathing, calmly, freely and each time (s)he breathes out, mention is made of a word of choice, one which induces a state of well-being—tranquillity, peace, harmony, etc. Then (s)he "goes deeper" and, each time (s)he breathes out, (s)he mentions a short sentence which expresses the dynamic, active realization of a project: "Tomorrow, I'll win the game." "Tomorrow, I'll pass my exam." As is the case with the other methods, synchronic sophro-respiration is followed by desophronisation and post-sophronic dialogue between therapist and subject.

## **5. Sophro-Liminal Protection**

In a state of sophronisation, the subject is asked to imagine the moment of going to bed, in the evening, and to outline his/her habits at that time, then to turn out the light (mentally) and to go through the synchronic sophro-respiration exercise, mentioning the word “calm” while breathing out as (s)he imagines herself/himself falling asleep. Calmness will then be a part of the subject’s sleep and dreams. This exercise is practiced during the day as a preparation for the act of going to sleep. The second part of the exercise consists of the subject’s visualizing daybreak, imagining his/her waking up, getting dressed, accomplishing a specific project. This treatment is used for insomnia and replaces sleeping pills which can have negative side effects.

## **6. Sensorial Sophro-Substitution**

This method follows training in the preceding methods, in particular, sophronisation and progressive sophro-acceptance. In a state of sophronisation, the subject is asked to become aware of a spontaneously felt sensation, say, warmth in the palm of the hand. The sophrologue invites the subject to change this sensation into another one—coolness, for example. (If desirable, images such as cool water flowing over the palm of the hand can be utilized). This method is used by dentists as a basis for local analgesia and, in obstetrics (i.e., painless childbirth), for the replacing of a painful sensation by a pleasant one.

## **ACTIVE METHODS**

Active methods are techniques of dynamic relaxation, originating in the Orient, which can be used for individual or group therapy. Although the term “dynamic relaxation” seems self-contradictory, these exercises of muscle contraction bring about a state of mental relaxation. Respiratory exercises used bring a greater supply of oxygen to the brain and improve concentration.

Dynamic relaxation is divided into three degrees. The first degree is based on techniques derived from Indian yoga. The subject is asked to concentrate on the contraction of his/her muscles and on the sensations following a given contraction. Breathing and visualization exercises are included in the first degree. The second degree is based on Buddhist

techniques. The subject is asked to contemplate his/her body (the senses, for example) from the outside, while performing a number of exercises which synchronize breathing with body movements. The third degree is based on Japanese Zen. In this third part, the subject becomes aware of his/her breathing, identifies with objects in nature and performs meditation exercises. Before practicing dynamic relaxation, the subject rinses his/her nostrils with salt water based on a special formula and a special temperature (that of the body). This exercise purifies the nasal passages and acts on the cranial nerves; it makes for better respiration, on the one hand, and better concentration, on the other.

A number of comparisons are possible between the elaborately detailed Sophrology exercises and the obliquely referred to Suggestology/Suggestopedia exercises in the Bulgarian original of the Lozanov thesis. We note the importance of a comfortable, immobile posture for proper physical and mental relaxation; the utilization of the progressive relaxation exercise (originally used in the suggestopedic language class as part of the session); synchronized breathing exercises; visualization exercises (in the suggestopedic language class, the visualization of the "ideal scene" is contained in the language dialogue); positive suggestions for well-being. Sophrology measures relaxation response with the EMG and the increase of alpha waves in the brain with the EEG; in the same way as Suggestology, Sophrology links the ideal state of relaxation to the "alpha state"—an altered state of consciousness—and to the lowering of the pulse beat.

While Suggestopedia was and still is the main focus of Suggestology, pedagogical applications are not necessarily the main concern of Sophrology. However, because of the relief from fatigue, on the one hand, and the improvement of memory, concentration and attention, on the other, Sophrology, like Suggestology, is especially suited to education and to the study of such subjects as foreign languages. Many teachers—particularly in Spain and France—use Sophrology exercises with normal children before classes begin (say, in the morning) and/or in therapeutic work with "problem" children—those who have learning and/or coordination difficulties. Sophrology has been successfully used in Paris by Jean Cureau (at the Lycée Voltaire) and Fanny Saféris in experimental language classes (Boon *et al.*, 1976, pp. 203–208). (Interestingly, these same two excellent teachers were later to change to suggestopedic teaching).<sup>5</sup> According to its adherents, Sophrology, like Suggestology/Suggestopedia, has numerous pseudo-pedagogical benefits, among

them: the acquiring of self-confidence, belief in one's capacities, emotional development and self-expression, capacity for relaxation, concentration of attention, improved creativity.

## **SOPHROLOGICAL MEMORY TRAINING SYSTEM**

Within the context of Sophrology, Dr. Caycedo has developed a memory training system which is used in numerous schools in Europe and South America, along with regular sophrological exercises.<sup>6</sup> This memory training system is derived from Japanese Zen ("a perfection of Raja yoga," according to Caycedo) and from the third degree of Caycedo's dynamic relaxation. Caycedo believes that memory is a function of consciousness; if consciousness is in disorder, then so is memory. For therapeutic and pedagogical reasons, Caycedo insists on the positive aspects of memory (for example, positive, as opposed to negative or "neutral" sensations). He believes that memory has five functions: (a) evocation (for example, of a positive sensation from the past); (b) fixation (or concentration on this positive sensation); (c) association (of colors, objects, persons with this positive sensation); (d) repetition (the positive sensation must be impressed on the mind); (e) presentation (an amplification or a summary of this positive sensation is presented in written or oral form). Much like the Schuster/SALT "Early pleasant learning recall" exercise (Schuster and Gritton, 1986, pp. 121-122), the Caycedo system for memory training uses, in the classroom, study or exam situations, instead of personal or therapeutic ones. Once the students have been trained in the system (the original course at the Instituto Alfonso Caycedo lasted four days which, curiously enough, is the same time-period which was probably allotted to relaxation training in the original suggestopedic method), they are able, just before an exam, for example, to visualize themselves in the appropriate Zen postures and to put themselves mentally in the appropriate state of relaxed alertness.

Dr. Caycedo believes that the physical and psychological aspects of humankind are inseparably linked and that the body is the ideal instrument for developing or training the memory. Caycedo insists particularly on the importance of (a) abdominal respiration and the coordination of breathing with thought or image; (b) proper cerebral circulation (as aided, for example, by the relaxation of the neck muscles); (c) correct posture(s) for relaxation and concentration. (The original suggestopedic method coordinated breathing with thought or

image in the special sessions and used special postures adapted from yoga).

Caycedo's memory training system uses three postures derived from Japanese Zen: (a) standing posture, with hands crossed over the stomach, eyes closed and feet slightly apart (this posture is used for the simple sophronisation exercise described earlier under "passive methods"); (b) seated posture, with feet stretched out, hands crossed over the stomach, eyes closed, the bottom of the back away from the chair and a slight inclination backwards of the upper body; (c) seated posture, with the back straight up and away from the chair, a slight curve in the lower back but no slouching of the shoulders, hands crossed over the stomach, eyes open or half-open, knees bent and feet under the chair. Posture 2 is used for evocation, fixation and association; posture 3 for the repetition of these three functions. Following the process of desophronisation (described above under "passive methods"), a normal seated posture is used for presentation, in oral or written form, of the recorded sensation or study theme.

The two seated postures from Japanese Zen are linked by Caycedo to two levels of consciousness. Posture 2 is linked to a deep level of consciousness, close to sleep, and to the first movement of memory in its three functions (viz. evocation, fixation and association). Posture 3 is linked to a higher level of consciousness, to reinforcement, repetition of the first three functions of memory and organization of the elements for presentation. Originally developed for use in therapy, Caycedo's memory training system is ideal for either rote memorization of basic factual materials (and at one's own pace, though without the aid of music) or for retention of the main points of a book chapter or an article one has just read. Students use Posture 3 to read the text. They then close their eyes and, adopting Posture 2, they visualize inwardly what they have just read (either the exact words or the main points). Returning to an alert posture, they verify and/or repeat in oral or written form what they have just studied in two different levels of consciousness.

Students of Suggestopedia will note that Postures 2 and 3 and the levels of consciousness they represent bear a close resemblance to the original two-part session in the suggestopedic language class. As developed by Aleko Novakov at the Institute of Suggestology in the late 1960s and early 1970s, Suggestopedia began with outward concentration on the text, at a higher level of awareness; the original "concert session," during which the students, with eyes closed, meditated on a text which was read, in the appropriate rhythm, over baroque slow

movements, corresponds to a deeper level of consciousness and to Caycedo's Posture 2. (For the original concert session at the Institute of Suggestology, students were seated in the alternate Savasana posture). Caycedo's five functions of memory—with evocation, fixation and association preceding repetition and presentation—correspond to Aleko Novakov's theory of "interiorization of language" in which meditation on, or visualization of a text furthers the students' ability to speak and communicate, as well as memorize.

Both Caycedo and Lozanov talk or write about the "unique" character of their systems. It is certainly true that the philosophical bases of Suggestology and Sophrology are different: Caycedo is in the Catholic tradition of the Latin countries and the phenomenological tradition of West European philosophy while Lozanov belongs, or belonged originally, to the Soviet tradition of psychotherapy and Marxism. Nonetheless, both medical doctors have travelled the royal road of yoga and both have been greatly influenced by the traditions of the East. Behind different names and different terms, one finds the same (or similar) ideas in Sophrology and Suggestology and in the pedagogical applications of these systems.

## NOTES

1. Insofar as Sophrology is concerned, see: Boon, Davrou and Macquet, 1976, pp. 78–79; p. 173. In the 1960s, both Caycedo and Lozanov used hypnosis and relaxation techniques for "painless" operations; some of these techniques subsequently entered their pedagogical systems. Among the books and articles on Sophrology which have been written, mainly in Spanish and French, by Dr. Caycedo and/or his collaborators, the most accessible for the non-medical lay-person is *La sophrologie* (Boon *et al.*, 1976).
2. Since the mid-1980s, Dr. Lozanov has been continuing his research into Suggestopedia, first at the University of Sofia and then in Vienna. After a period in his native Colombia in the 1980s, Dr. Caycedo now directs the International Sophrology Federation from Andorra.
3. According to sophrologists, there are three main states of consciousness: pathological, normal and the so-called sophrosynic state (Boon *et al.*, 1976, pp. 74 ff).
4. For a complete account of the active and passive methods used in Sophrology, see Boon *et al.*, 1976, pp. 130–164.
5. Regarding the work of these two teachers in Suggestopedia, see, for example, Saféris, 1978 and Cureau, 1983.

6. Information on Caycedo's memory training system is taken from official notes on the four-day "Curso de Entrenamiento Sofrologico de la Memoria," held at the Instituto Alfonso Caycedo from May 28 to 31, 1979 and from conversations with Dr. Caycedo in late May and early June, 1979. See also: Davrou and Leclerq, 1982 and Pecollo, 1987.

## The Tomatis Approach

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As we have seen, it was in the late 1960s and early 1970s that, at the Institute of Suggestology in Sofia, Bulgaria headed by Dr. Lozanov, a team of experts combined yoga relaxation, baroque music and verbal suggestion with the direct method to produce a unique system of foreign language teaching: Suggestopedia. Somewhat earlier, in the 1950s in France, Dr. Alfred Tomatis began his research into the ear and the voice and began developing his own unique system for treating dyslexia, on the one hand, and teaching foreign languages, on the other. As in the case of Lozanov's Suggestology, Tomatis' system, which was originally applied to the field of medicine, led to important consequences for pedagogy.

There are, of course, significant differences between the Tomatis Approach and Suggestology/Suggestopedia and, in contrast to the Sophrology memory-training system and the original session in Suggestopedia, the systems originated by Lozanov and Tomatis cannot be said to be mirror reflections one of the other. However, there are, as we shall see, a number of important similarities between Tomatis' and Lozanov's discoveries and methods.

Both Lozanov and Tomatis are medical doctors, therapists and researchers who have been influenced by yoga. As is well known, Lozanov is a yogi. Tomatis' son has been involved in the French Yoga Federation and Tomatis himself has studied yoga; in his autobiography, *L'Oreille et la Vie*, he pays tribute to the benefits of yoga and says that the ideal in medicine, as in education, should be a holistic approach based on yoga (Tomatis, 1977, p. 129; pp. 259–261). Lozanov, of course, continually emphasizes the integration

of the conscious and the unconscious and the linking of mind and body.

In much the same way as Lozanov, Tomatis (1978a, pp. 36–37) stresses the role of the “*maître*” and underlines the importance of the personality of the therapist or teacher. And, like Lozanov, Tomatis (1977, p. 269) declares that a special relationship or pact of confidence must exist between the doctor or teacher and the patient or student. As in Suggestology, the Tomatis Approach considers the environment to be an essential factor in treatment or pedagogy and Tomatis (1978a, pp. 50–51, pp. 141–143) stresses the importance of the family atmosphere as well. In Tomatis’ therapy, the parents are involved from the beginning in the child’s treatment process.

We have already seen that Lozanov stresses the importance of intonation or tone of voice in therapy and in pedagogy. Tomatis lays great stress on voice training and on the voice—not surprisingly, as he was trained as an ear, nose and throat specialist, his father was a well-known singer and he has spent many years treating singers’ voice problems. Those individuals selected to make recordings for the Tomatis Center in Paris must have the appropriate voice quality: “a well-modulated, mellow voice, one rich in high frequencies” (Tomatis, 1978a, p. 142). Tomatis emphasizes the importance of the mother’s voice in his treatment of dyslexia and recordings of the mother’s voice are used during certain therapeutic sessions. While Lozanov does not seem to have mentioned anything on the subject—at least in writing—one remembers that maternal-sounding women’s voices have been the norm in the suggestopedic classroom in Bulgaria and in the former Soviet Union.

Like Lozanov, Tomatis stresses the importance of rhythm in language and, in his treatment process for dyslexia, for example, he uses a variety of rhythmic patterns in music and in voice. We have seen that an important theoretical principle of Suggestology/Suggestopedia is “concert pseudo-passivity.” Tomatis (1978a, p. 119, p. 134; pp. 140 ff) also believes in the importance of a relaxed atmosphere (“*atmosphère de détente*”), correct posture and proper breathing. While the original suggestopedic session favored baroque violin concerti or baroque chamber music for strings and *basso continuo*, Tomatis prefers the high frequencies of Mozart violin concerti and/or the slow rhythm of Gregorian chants in his treatment of dyslexia, on the one hand, and in his basic language programs, on the other. Positive suggestions for pleasant learning, given while the subject is in a relaxed state, are a feature of both the Tomatis and suggestopedic methods.

In the 1950s and subsequently, as part of his clinical practice, Tomatis saw a wide range of patients, from opera singers to workers suffering from the effects of industrial noise. In treating these patients, he detected evidence that speech was affected by hearing loss. Further investigation of this phenomenon led Tomatis to the belief that one can only vocally reproduce what one can hear (“la voix ne contient que ce que l’oreille entend”), an axiom that was given official recognition in 1957 by the French Academy of Science as the “Tomatis Effect” (L’Effet Tomatis).<sup>1</sup>

Just as there is a difference between looking and seeing, where seeing involves the movement of the eye muscles for proper focussing, so, too, there is a difference between hearing and listening where listening involves the movement of specific ear muscles for proper “focussing.” This means that a child may be able to hear well but still not be able to listen properly to what is being said; (s)he may “hear” but not be able to integrate the message.

Tomatis believes that a listening deficiency causes the child to receive sound in a distorted manner. As the child makes unsuccessful attempts to discriminate between the verbal message and surrounding noise, (s)he becomes fatigued and frustrated. His/her attention span is shortened. Moreover, the child’s normal language development and, in consequence, his/her relationship to the outside world can be affected, especially if the ability to listen to particular frequencies is lost at an early age because of such illnesses as chronic ear infection. Since reading is the act of placing a phonetic or sonic image on a letter and spelling is the converse, a child’s ability to listen properly may be a significant contributing factor in dyslexia. In addition, as a child attempts to cope with this listening deficiency, he (or she) may manifest such behavioral symptoms as withdrawal, hostility, hyperactivity and lack of motivation. Consequently, Tomatis believes that, in dealing with and treating learning problems, there is both a physiological need to train the individual to listen properly and a psychological need to enhance the person’s self-image.

Unlike other methods which attempt to assist a child to adapt to, or compensate for a learning disability, the Tomatis Method attempts to “effect a repair.” This is achieved through a controlled process of auditory stimulation using sophisticated electronic equipment and special control interviews with the child and his/her parents at defined times in the program. Although child-oriented, the Tomatis Approach stresses parental involvement since the interest and support of the parents is an integral and beneficial part of the program. (Tomatis

considers the mother to be especially important in the treatment process and each mother is encouraged to take the same training as her child, especially in the early stages, so that she will understand what her child is experiencing). The child's teacher(s) can also provide encouragement and important feedback to the Tomatis Center program consultants by noting changes in the child's behavior. At appropriate intervals, such as at the end of the school year, case consultations may be held with the parents, teacher(s) and the Tomatis program consultants to assist the teacher(s) in planning the most appropriate courses for the following year.

The first step in the Tomatis program for treating dyslexia is the "initial assessment" of the child, an assessment which is conducted in two stages. Firstly, the child's case history is recorded and several tests are made—including a test of the child's listening ability. Then the child is interviewed by the Tomatis program consultant(s). In a second stage, several additional psychological tests are conducted to determine such factors as the child's intellectual ability and his/her level of general achievement. The initial assessment generally entails about four and one-half to six hours and is used to determine the child's current status and his/her ability (or inability) to benefit from the Tomatis program. The type of program recommended is based upon the results of the initial assessment.

The steps followed in the Tomatis Method are identical for everyone: they consist of a progression which simulates the various stages of listening and language development. The length and organization of each program-stage, however, may vary from child to child. Variations in the program are monitored by the consultant(s) through the control interviews. Individual program sessions last approximately 35 minutes and children usually come three times a week to the Tomatis Center for a two and one-half hour period (i.e., four tapes of 35 minutes). Separate remedial training is conducted in the appropriate subject(s) of study. Control interviews are planned to follow every 20 program sessions. As part of each control interview, the child receives a listening test and the child's progress is reviewed with the child and his/her parents.

The Tomatis program consists of two major parts: the "passive phase" (listening training), during which the child listens to sounds, and the "active phase" (audio-vocal training) which requires the subject's active and vocal participation. Employed throughout much of the program is the special electronic equipment designed by Tomatis—in particular, a machine called the "electronic ear."

## LISTENING TRAINING OR PASSIVE PHASE

During the first (or passive) phase, the child receives auditory stimulation through earphones which include a vibrating device placed on the forehead. (The earphones are attached to the “electronic ear” which is attached to the tape recorder). Music is used in the initial stages of what is called a “retour sonore”—a return to the sound conditions of the mother’s womb. (The sound world of the uterus resembles a liquid world, a waterfall with chirping noises; the mother’s respiration is perceived as a kind of flux and reflux). The child listens to Mozart’s symphonies or violin concerti; for Tomatis (1977, p. 243; 1991a, p. 193) Mozart is *the* universal composer<sup>2</sup> but such baroque composers as Vivaldi are also used. At first, the music is unfiltered but, as the 35-minute sessions proceed, the music becomes more and more filtered so that only the higher frequencies remain. (The acoustic impressions the foetus receives in the uterus are high-frequency sounds; filled with water, the foetal ear acts like a filter, selecting, as it were, the frequencies the foetus hears [Tomatis, 1977, p. 198; p. 206]). The child thus hears Mozart violin music—the violin being the instrument that has the most high frequencies—from, say, sessions one through 14, with the progressive removal of frequencies below 1000 Hz, 2000 Hz, 3000 Hz, 4000 Hz, and so on. As the music becomes more and more filtered, finally only those frequencies above 8000 Hz are present in the “music.” According to the research that has been conducted by Dr. Tomatis and his associates, high frequencies bring about a state of relaxation, on the one hand, and stimulate the cortex, on the other (Tomatis, 1972; Madaule, 1973). Low frequency sounds, in contrast, provoke a state of fatigue and anxiety.

With session 15, the child begins listening to a recording of the mother’s voice, at first in a very filtered form (i.e., only those frequencies above 8000 Hz are present). According to Tomatis, one’s first desire is to communicate with the mother and/or to recommunicate with the mother in the womb. Tomatis uses female voices in his various language programs, particularly in the beginning stages. The male voice, the voice of the father, is heard later. With adopted children, a “maternal” voice is still used and, in foreign language training, a female native speaker replaces the mother, so to speak, in the reading of texts. Initially, the mother’s voice sounds something like crickets chirping as only high-frequency sounds (such sibilants as *s*, *z* and *th* in English) are audible. The mother’s voice is perceived as one perceived it in the womb. From sessions 15 through 50, in the various

stages of what is called an "accouchement sonique" (or sonic birth), the mother's voice becomes less filtered as the missing frequencies are gradually reintroduced. In the same way as a baby progressively hears during the ten days after birth in his evolution from the liquid world of the foetal ear to the sound world of air, one begins to hear a thin voice, then a more complete voice and finally the full voice of the mother reading a story. (In foreign language [re]training, the frequencies of the foreign language are introduced). The mother undergoes voice training, if necessary, in order to learn to position her voice correctly and the reading proper is done under the "electronic ear" to improve the timbre of the voice.<sup>3</sup>

In this approximation (or simulation) of a sonic birth, the child at first does not recognize the mother's voice but (s)he is able to identify it (and to identify with it) at the end of the process. By session 62 (or thereabouts), the child begins to hum and repeat words; the active phase has begun. One might add, however, that the child does not remain entirely passive while listening to the filtered music and the filtered voice of the mother. While wearing headphones and a head band, with the sound volume adjusted to a comfortable level, he or she is engaged in a variety of creative activities such as drawing, writing and playing games in a specially designed room. As in the original suggestopedic session, emphasis is placed during the passive phase of the Tomatis Method on indirect attention.

During the so-called passive phase, the children are especially encouraged to do art work and all drawings are kept on file by the staff of the Tomatis Center. Usually the child's progress while listening to filtered music can be clearly seen in the creativity of his (her) drawings; these become more decorative, more expressive, better defined. Colors are brighter. It would appear that the awakening of the ear has a positive effect on the eye. The daily sessions are supervised by a staff of therapists who have a background in such fields as special education and psychology and who have undergone special training under Tomatis' direction. Daily observations of the children are recorded by the therapists and assistants. These reports as well as discussions with the program consultant(s) provide an on-going assessment of the child's progress at the Center.

During the passive phase a number of changes begin to occur in the children. According to Tomatis, retraining the ear has a positive effect on the entire nervous system. Right from the beginning of the program, the children frequently show changes in eating, sleeping and other behavioral patterns. During and following these early changes,

the child appears to be calmer, more outgoing and in better humor. Parents often mention that their child is more communicative and takes a greater interest in family activities. A balance is achieved: the more excitable child calms down and the more withdrawn child opens up. The child also mentions that he or she can hear people talking more clearly: "They don't have to repeat what they say." The child starts to read (or reads more than usual) and reports that reading is easier and more interesting. The child's attitude towards learning in school often becomes more positive. His (or her) concentration begins to improve.

Much of the music research of Tomatis and his associates has centered on the effects of filtered music on children with communication problems and learning disabilities. Since filtered music reproduces the sonic atmosphere of the mother's womb, the sessions of filtered music may be said to be situated, in the educational memory of the child, between life in the womb and the beginnings of the acquisition (or the hearing) of language. Filtered music acts as a catalyst, relaxing the child, on the one hand, but stimulating him (or her), on the other, to participate in the world of sounds that precedes the world of speech (Tomatis, 1978b). The filtered music allows the child to recoup his/her needed energies so that he (or she) may overcome his/her learning and communication problems. Sessions of filtered music are frequently used in alternation with language sessions in Tomatis Centers, even after the so-called passive phase has been completed.

### **THE ACTIVE PHASE: AUDIO-VOCAL TRAINING**

The purpose of the active training phase is to help the child properly use his (or her) new listening ability. An analogy is made in the Tomatis Center literature to a pianist who, having learned to play on an out-of-tune piano, must now be taught to play a properly tuned instrument. During this phase, the child is asked to listen to tapes of different kinds (songs, words, sentences, for example) while under the "electronic ear" and to reproduce vocally what (s)he hears into a microphone. Singing is particularly favored as a memory-training and linguistic-structuring device. Tomatis makes use of Gregorian chants which the child hears and repeats during the active phase; Gregorian chants are used because of their slow rhythm and high frequencies. During the active phase of a foreign-language training program, foreign-language songs are used. The reproduced sound is automatically adjusted by the electronic

equipment so that the child hears his or her own voice correctly. Furthermore, during the audio-vocal training period, a balance system permits the sounds to be focussed progressively on the right ear (i.e., the left hemisphere of the brain) which Tomatis believes is the key to proper listening. The child is encouraged to read aloud, both during the sessions and at home. This active phase continues through a series of sessions and control interviews until a combination of the results of the listening tests, observations, reading tests and interviews signals an end to the program.

It might be added that the same system of active and passive phases is applied to the learning of the basic elements of a foreign language. During the passive phase, students are immersed in the sound-world of the language in question. Vocabulary taught in the active sessions takes word frequency as well as sounds into account; for example, those words first used in an English program are those which are rich in high frequencies, the sibilants.

The end of the appropriate Tomatis program for the treatment of dyslexia generally occurs after 20–24 weeks of training. Each child will usually be asked to return once a month for two months and thereafter every other month for follow-up control interviews and evaluations. However, a long history of academic failure may leave the child hesitant to put into practice his (or her) newly developed abilities to listen and to learn. Furthermore, he or she may still suffer from poor learning habits. The help and support of parents and teachers will be important at this stage as the child strives to accomplish his or her goals. In follow-up control interviews with the Tomatis program consultant(s), tutoring or special teaching may be recommended.

## THE ELECTRONIC EAR AND LANGUAGE TRAINING

An important feature of the Tomatis program for treating dyslexia and communication problems, on the one hand, and teaching basic elements of foreign languages, on the other, is the use of a special machine called the “electronic ear” (L’Oreille Electronique). A definition of the electronic ear is given in a work by Robert Lafon, *Vocabulaire de Psychopédagogie et de Psychiatrie de l’Enfant* and repeated by Tomatis in his book, *Education et Dyslexie*: “Apparatus consisting of a microphone, amplifiers, filters and earphones, used for the treatment of phonatory problems and dyslexia. Coupled with a tape recorder, it makes conditioning in foreign languages possible”

(Tomatis, 1978a, p. 145). A specially designed machine placed between the tape recorder and the headphones, the electronic ear modifies the sounds the recipient hears and, more especially, retrains the ear to hear sound correctly, in particular, high-frequency sound.

Not surprisingly, since he is an ear specialist, Tomatis lays great stress (some would say too great) on the importance of the ear in language training. In a monograph by his wife and collaborator, Léna Tomatis, entitled *L'intégration des langues vivantes*, as well as in the more recent work by Dr. Tomatis entitled *Nous sommes tous nés polyglottes*, one finds statements like the following: "One talks with one's ear"; "one learns a modern language by hearing it and by hearing it correctly" (L. Tomatis, 1970, pp. 5-6; Tomatis, 1991a, p. 18, p. 24). Tomatis well realizes that the best place to learn, say, French, is in a French-speaking milieu or country. In the classroom, which is an artificial learning environment by definition, the student must be "integrated" into the sound universe ("l'univers sonore") of the foreign language. The electronic ear is particularly useful in this regard because, by changing the frequencies the ear hears, it permits the student to hear, and, eventually to speak (and even act) in the manner of the appropriate native speaker.

Through the use of the electronic ear, Tomatis recreates the hearing conditions of childhood when one learned one's mother tongue. He believes that if, during a given period of time, the "lost" frequencies are made audible to the ear, these frequencies will once again become a part of speech. The adult learner thus recovers the "ear" s/he possessed in childhood and is able to hear correctly the appropriate foreign-language sounds. Tomatis is particularly interested in retraining the right ear (which he calls "L'Oreille Directrice") because he believes that the right ear controls such language parameters as intensity, timbre, intonation, inflection and semantics (L. Tomatis, 1970, p. 9).

An interesting aspect of Tomatis' research involves the analysis of the frequency range of a number of European languages, including Russian. The human ear is able to perceive frequencies ranging from 20 cycles per second (20 Hz) to 20,000 cycles per second (20,000 Hz). However, if an individual is raised in a given linguistic environment, his (or her) ear will gradually "hear" only those frequencies that are a part of his/her mother tongue. Statistical analyses of British English show that the native English speaker uses a frequency range that is between 1800 Hz and 12,000 Hz. The Italian ear, meanwhile, can "hear" frequencies between 2000 and 4000 Hz while the French ear is

tuned to hear frequencies between 800 and 1800 Hz. The Russian ear is tuned to a frequency range going from the lowest to the highest frequencies which the human ear can normally perceive. It has always been said that the Slavs "have an ear" for languages and Tomatis' research proves this statistically. These frequency-range analyses relate to Tomatis' ideas on language training because listen and reproduce ("entendre et reproduire") are two essential principles of Tomatis' language programs. If one is listening, say, to English with a French ear, one will not be able to reproduce English accurately. By the same token, a native English speaker could be "deaf" to the subtleties of French vowels, all crowded, so to speak, into a narrow frequency range (Kerckhove, 1978; Tomatis, 1991a, pp. 21-28).

By modifying the frequencies the ear hears, the electronic ear "opens" the human ear to the new sounds and different frequency range of the foreign language. In contrast to the language laboratory where the student very often does not "hear" the foreign-language sounds correctly and thus is unable to reproduce them, the electronic ear permits the correct perception of the "foreign" sounds and gives rise to correct reproduction. Tomatis is critical of the language teaching methods generally in use (for example, the audio-visual method) for, he says, they fail to take into account the special relationship that exists between audition and phonation. Tomatis believes that the electronic ear should become a part of every language center because he has found that this special machine improves not only the student's accent and speech patterns but also his/her auditory memory. The electronic ear trains the student to listen to his/her own speech: "Parler, c'est s'entendre" (To speak is to hear oneself) (L. Tomatis, 1970, p. 33; Tomatis, 1991a, p. 99, p. 169). It is the ear which must regulate such linguistic elements as intonation and inflection and, while under the electronic ear, the student learns to monitor him/herself in these matters through listening to himself (or herself) speak.

In such works as *L'intégration des langues vivantes* and *Nous sommes tous nés polyglottes*, Tomatis recommends that the electronic ear should be used before foreign language lessons actually begin so that the ear may become conditioned to the sounds of the foreign language (L. Tomatis, 1970, p. 34; Tomatis, 1991a, p. 170). (Tomatis also recommends that language students be given a preliminary audiogram as well as listening and vocal tests to determine their propensity for learning the foreign language in question). Of course, recordings and equipment should be of very good quality and the frequency range of the equipment should be verified; the sound reproduction should be

accurate for the frequency range of the appropriate language. For false beginners, Tomatis recommends the same procedure, i.e., one must begin over again in order to correct the students' false perception of the foreign-language sounds. Together with (or as a part of) lessons in class, at least 10 or 15 minutes a day should be devoted to phonetics exercises while the students' headphones are attached to the electronic ear. These phonetics exercises should involve sounds, rhythms and intonation patterns, i.e., those elements of the foreign language that the student usually has the most problems learning. (Special attention should be paid to "difficult" sounds, i.e., those which do not exist in the student's native language). The student's pronunciation should be worked on and the phonetics exercises should involve continual student participation.

As in the original active session in the suggestopedic language class, Tomatis emphasizes that a very effective technique for learning foreign languages is the combination of audio and visual elements: "The subject, left to himself (or herself) in front of the equipment, follows with his/her eyes the image which is projected for him (her) while the text relating to it is introduced into his (her) ears by a headphone linked up to a tape recorder" (L. Tomatis, 1970, p. 32; Tomatis, 1991a, p. 166). Parallel to the phonetics exercises, visual images can be projected onto a screen so that the student can coordinate sound and image.

Following this special training with the electronic ear and together with it after an introductory period, the student must, of course, be taught grammar and vocabulary. Tomatis' language programs involve a movement from *son* to *sens* (sound to meaning). Tomatis says that his programs—and especially those which involve the electronic ear—can be used in conjunction with recognized language teaching methods.<sup>4</sup> The Tomatis Effect can also be combined with scientific research in such fields as phonetics and phonology.

A number of theoretical comparisons between Suggestopedia and the Tomatis Method were noted at the beginning of this chapter. Insofar as the practical aspect of both systems is concerned, it is interesting to note the common use of active and passive phases or sessions. In contrast to Lozanov, Tomatis puts the passive phase of indirect attention and music (music which is similar to that used in the original suggestopedic concert) before the active phase of concentration on the text and speaking or reading aloud.<sup>5</sup> According to Tomatis, music seems to provoke in the child the memory of a pre-linguistic stage, as well as the desire to speak and communicate.

Both Suggestopedia and the Tomatis Approach favor listening before speaking. In the Tomatis programs, with their emphasis on the ear, the child (or the student) is trained to listen in order to correct his/her speaking or reading problems and/or learn the basic elements of a given foreign language. In the original language classes at the Institute of Suggestology, a given suggestopedic dialogue was read to the students during the active and passive sessions and then elaborated upon in conversations, games and sketches the following day. It could be said that both Suggestopedia and the Tomatis Method favor the ear and that, in both methods, there is a transfer from ear to performance. Tomatis favors electronic equipment, whereas Lozanov and his colleagues have been opposed to such things as language laboratories. One could say, however, that no electronic ear was needed in Bulgarian or Russian Suggestopedia because, according to Tomatis' research, the Slavs hear all the frequencies necessary for learning a Western foreign language. (It is also possible, of course, that the suggestopedic process of infantilization permitted [or permits] students to recover the "ear" they had in childhood).

Both Suggestopedia and the Tomatis Method use a variety of activities in language learning (games, for example) and both attach particular importance to singing. Both systems stress the importance of repetition and the coordination of the oral and the visual, of sound and image. Both methods are said, by their proponents, to develop attention span and memory. And both Suggestopedia and the Tomatis Method are holistic in that they aim to develop the whole personality of the individual in a pleasant learning environment.

## NOTES

1. Most of the material of the following three pages is taken from Tomatis Center literature.
2. Tomatis' book on Mozart was written to commemorate the bicentenary of Mozart's death: *Pourquoi Mozart?* (1991b).
3. Much of the material of this section is taken from interviews conducted at the Tomatis Center in Toronto, Canada in the 1980s.
4. See, for example, a report by Vanthuyne, Debruyne and Schenkel (1977). See also: Tomatis, 1991a, pp. 164–165, pp. 176–181.
5. In his therapeutical memory-training system, Dr. Alfonso Caycedo also puts the passive phase of indirect attention before the active phase of outward concentration.

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## CHAPTER 12

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# The Suzuki Method

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The Talent Education (or Mother Tongue) Method of Shinichi Suzuki had its origins in Japan more than 50 years ago. (The Matsumoto School was the first to open in 1945 but Suzuki conceived his method somewhat earlier). Although the Suzuki Method is principally used for the teaching of music—especially in North America where it has been in existence since the 1960s—in Japan the Suzuki approach has been applied to the teaching of such academic subjects as mathematics, Japanese and English. And Suzuki based his music method on the way children learn their mother tongue.

In keeping with Japanese tradition, Suzuki attaches great importance to the element of prestige. The teachers engaged should be worthy of respect; a parent (i.e., an authority figure within the family) is involved from the beginning in the child's music training and the parent becomes, in effect, a home teacher—at least in the early stages. The recordings the children listen to at home should be of superior performances made by distinguished artists.

Suzuki believes that music education cannot begin too early. "Educate as early as possible" is his philosophy (Suzuki, 1973, p. 15). By his competence, relaxed manner and positive suggestions, the teacher should motivate the child to learn. "Above all," says Suzuki, "the teacher should have a passion for true education, a deep understanding of children, and the love of a mother."<sup>1</sup> The child should feel that the teacher enjoys teaching him (or her). Although the technical aspect is constantly emphasized in the Suzuki Method, "dry exercises" are avoided. As in the original suggestopedic language class, the teacher must be creative enough to invent his (or her) own exercises. In

addition to private lessons and home practice, group lessons are an integral part of the Suzuki Approach and, during these group lessons, activities are varied to include songs and games. The pupils are entertained while they develop their skills. Imitation and repetition are emphasized in the Suzuki Method; many whole pieces are committed to memory before the reading of music is taught. Emphasis is placed on performance and frequent "concerts" are the rule, whether at home or in public, as performer or as member of the audience.

For Suzuki, the environment is crucial; children should be educated or brought up in an atmosphere of trust, joy, love and security. According to Suzuki's humanitarian philosophy (which is very similar to Lozanov's), all children have great potential; were this not the case, they would never learn to speak their mother tongue as well as they do.

While Suzuki does appear to recognize hereditary physiological differences, for him the school and home environment is *the* determining factor in a child's development. "If all parents were awakened to the inherent nature of their children and provided them with an ideal environment, all children would gain extraordinary ability" (Suzuki, 1973, p. 9). For Suzuki, talent is not necessarily inherited and cultural sensitivity is learned. "To be born with excellent or superior qualities only means to be born with an ability to adapt more speedily and sensitively to one's environment" (Suzuki, 1983, pp. 13-14). According to Suzuki's philosophy, every child, even a handicapped one, can learn if the stimulus is repeated often enough and if the learning environment is positive. "Many children [however] grow up in an environment that stunts and damages them, and it is assumed that they were born that way; they themselves believe it too" (Suzuki, 1983, p. ix). The responsibility of providing a positive environment lies with parents and teachers.

According to Suzuki, if any child is brought up so that (s)he hears off-key, distorted music every day, that child will become tone-deaf. In contrast, if any child is brought up so that (s)he hears good music every day from the time (s)he is born (through records, for example), that child will become a person with a "rich musical sense."<sup>2</sup> In Suzuki's opinion, while each child has his (or her) own growth rate, each child is born with a "wonderful living soul" capable of responding positively to a favorable musical environment (Starr, 1976, p. 16).

It has already been seen that, according to the Lozanov thesis, the principal theoretical elements of Suggestopedia are: authority (or prestige), infantilization (or confidence of subject), double-planeness (importance of the environment), intonation, rhythm, concert pseudo-passivity.

In his various written and oral pronouncements, Suzuki emphasizes the prestige of the teacher; the potential of the child (his/her spontaneity and creativity); the importance of the school and home environment. Since the principal subject taught by his method is music, Suzuki interprets the term "intonation" somewhat differently from Lozanov. Whereas, as we have seen, Lozanov uses the term "intonation" to mean, essentially, the tone of voice of the teacher, Suzuki emphasizes the importance of instrumental tone production in music lessons. Both systems stress the importance of rhythm. In the original suggestopedic language class, in addition to a variety of pace provided by games, sketches and conversations, the correct rhythmic presentation of language material during the session was considered essential for improved memorization. In the Suzuki Method, music training begins with rhythmic games to establish a sense of rhythm in the child and both correct rhythm and beautiful tone production are considered essential in the child's musical performance.

It is clear from their writings that both Lozanov and Suzuki have been influenced by Eastern systems of relaxation and concentration training—whether yoga (especially Raja yoga) in the case of Lozanov or Japanese Zen in the case of Suzuki. Their respective memory training systems have, at least in print, an Oriental vagueness to them, although those who have taken courses in Suggestopedia and/or in the Suzuki Approach can attest to a precision of detail. It would appear also that the memory training aspects of both Suggestopedia and the Suzuki Method have been more rigorously carried out in the appropriate country of origin (whether Bulgaria or Japan) than in the West. In the written accounts available in English translation of both Lozanov's and Suzuki's works, there are but oblique references to breathing exercises, correct posture(s), concentration and relaxation training.

Vagueness of detail notwithstanding, however, the works of both Lozanov and Suzuki attach great importance to memory and memorization. We recall that, for Lozanov (1978, p. 251), the "main obstacle encountered in teaching is memorization, automation and the assimilation of the material presented." In his book, *Nurtured by Love*, Suzuki declares that "memory is essential" and that "memory skill can be acquired by anybody, if it is properly inculcated." With proper training, one's ability to memorize can improve; the time it takes to memorize becomes shorter and shorter until one is able to memorize "immediately." And after one has learned something, one remembers it. According to Suzuki, "children of high scholastic standing at school

are simply ones whose memory skill is unusually well developed” and inferior students are “only ones who have not acquired memory skill” (Suzuki, 1983, p. 92). Students in Suzuki schools in Japan are trained to memorize and recite well-known *haiku* which have been selected for their interest, poetic charm and observation of nature. (A *haiku* is a short Japanese poem of five, seven and five syllables in three lines). In one year, Japanese children usually acquire the ability to memorize 170–180 *haiku* and they are able to repeat any one of them upon demand.

As in the original suggestopedic language class, mental awareness is emphasized in Suzuki music lessons; for example, mental anticipation of motions to be made and mental reflections on motions already made are considered valuable tools for the violin student. While Lozanov believes in the use of positive suggestions for pleasant learning and each suggestopedic language dialogue encourages the student to visualize a pleasant scene, Suzuki students are encouraged, through positive suggestions, visualizations and affirmations, to imagine themselves playing well and giving fine performances. Although the Suzuki teacher should be sensitive to signs of fatigue in the young child and should give the pupil moments of relaxation, he (or she) should strive to develop the child’s concentration span in the lesson. Suzuki believes that a youngster’s attention span can be gradually built up from a few minutes to lengthier periods of time (say, 45 minutes). Home practice periods should grow in length along with the child’s ability to concentrate. According to Suzuki (as quoted in Starr [1976, p. 19]):

At home two or three minutes of practice may be enough for a beginner. Perhaps this can be done four or five times a day. Gradually each practice period can be longer as the child begins to play the Twinkle Variations. If he can play all the variations of [Twinkle Twinkle Little Star], which may take four minutes, his ability to concentrate is also developed to that length of time. As other pieces are added, the period of concentration lengthens naturally.

In the Suzuki Method, as in the original version of Suggestopedia, concentration training is accompanied by relaxation. Or rather, the ideal in both methods is to achieve in the student a state of relaxed alertness—the ideal learning state. According to Starr (1976, p. 139), tension remains the chief obstacle to the development of a fine technique on the violin. From the very beginning, violin teachers are continually trying to produce the right kind of relaxation in the child’s shoulders, hands and arms. Muscles do need to be developed for

strength but these same muscles should not exert more force than necessary, nor should muscles be used that are unnecessary. The Suzuki Method teaches the children to move about in games while they are holding the violin, both to relax them and to free muscles that might otherwise be tense. Experienced teachers get their violin pupils to relax by placing their hands on the children's shoulders, bending and massaging the fingers of both hands, checking for excessive finger pressure on the strings and by asking the children to "feel" the teacher's arms and hands as he (or she) plays, to feel their lack of tension. (Relaxation techniques may be used during practice and at lessons or before a performance). Suzuki believes in teaching the children the "proper kind of relaxation" (coming from Zen and yoga) in which one is relaxed yet centered. Mind and body are considered as one. Correct posture is emphasized in violin training and breathing exercises may be used to put strength in the center of gravity—a point in the lower abdomen several inches below the navel.

Both Lozanov and Suzuki believe not only that every child has great potential but that students learn best in an atmosphere of joy. According to Lozanov (1978, p. 258), there should be a "joyful freedom" in the process of instruction. Suzuki believes that the relationship of parent to child (or teacher to child) in a learning situation should be warm, loving and relaxed (Ferro, 1973, pp. 39–40). The learning process should be one of enjoyment for teachers and parents, as well as students. The pupil should be motivated by praise, warm support, constructive criticism (if and when needed), a sense of sincere and joyful participation in the music by parents and fellow students. Even home practice should be filled with enthusiasm. Making music "fun" does not mean setting lower standards, however. In the Suzuki Approach, while the children do have fun, this is not at the expense of excellence. It is generally recognized that Suzuki students learn to play well and become very sensitive musicians. In Suzuki experimental schools in Japan where all subjects have been taught, the lessons were performed in an enjoyable atmosphere, no homework was assigned and no child was ever made to feel inferior; lessons, however, were thoroughly learned by the pupils (Starr, 1976, p. 2).<sup>3</sup>

If Lozanov has been greatly influenced by yoga, Suzuki is in the tradition of Japanese Zen in that the Suzuki Method believes not only in fostering a musical sense and developing performing ability but also in forming character (Cook, 1970, p. 33). The extra-musical aims of Talent Education (like the extra-linguistic aims of Suggestopedia) are in keeping with the Eastern pursuit of wholeness, integration and

spirituality. "Art is heart," says Suzuki (as quoted in Cook, 1970, p. 70). In its English translation, Suzuki's autobiography is entitled *Nurtured by Love*; like Lozanov, Suzuki (though not a medical doctor) has been said to have "healing powers." In the Suzuki Method, emphasis is placed on love, on making a better world, on international goodwill, on the happiness of all children (Cook, 1970, p. 26). If Suzuki pupils do not all become professional musicians, they nonetheless receive a very fine musical education and will probably enjoy good music for the rest of their lives.

The Suzuki approach to education begins with listening and the development of the ear and the memory. The first music pieces are learned by rote, giving the pupil freedom to put all of his (or her) attention on tone, shading and technique. Reading music comes later, after good playing habits have been established. The Suzuki Method is based on the intuitive discovery by Shinichi Suzuki that all children throughout the world are educated to speak their mother tongue with the utmost fluency. "This education in their native languages enables them to develop their linguistic abilities successfully to an extremely high level" (Suzuki, 1973, pp. 10–11). According to Suzuki, the world's best educational method (for children) is found in the method of teaching the mother tongue—a method in which speaking precedes reading, pronunciation is developed through listening and individual words and phrases are repeated over and over until they are learned and absorbed. A good deal of this learning takes place through indirect attention, i.e., the child learns his (or her) native language while doing something else, while engaged in activities, games and the like. Suzuki considers two principles to be the most important elements in his method: (a) the child must be helped to develop an ear for music through repeated stimulation; (b) from the very beginning, every step must be thoroughly mastered and each piece must be perfectly memorized (Suzuki, 1973, p. 12). Overlearning is encouraged as the goal is automatic execution (i.e., the technical side should be executed automatically).

According to Suzuki, an ear for music is not innate; rather, an ear for music (like an ear for language) is something which can be acquired by repetitive listening; "the sooner this is begun the more effective it will be" (Suzuki, 1973, p. 12). Ideally, according to Suzuki, music training should begin at home from the moment of the child's birth. A short masterpiece (or movement from a masterpiece) by one of the great composers is selected and that one selection (or one movement) is played every day for the baby. Baroque compositions are

often used because of their clear rhythmic structures, uncomplicated harmonies and sustained melodies. After about five months, the baby will have "learned" (i.e., absorbed) the selection; at that point, another selection (or movement) is added. The baby now hears two selections every day. Following this pattern (or musical progression), the baby will grow into a child who is sensitive to music. Suzuki stresses that, in addition to soothing the baby, listening to good music motivates the child to want to play that music later on, develops his/her musical memory and improves his (or her) future ability to play by ear.

Once the child's ear for music has been developed through repetitive listening, he (or she) is ready to begin to learn to play a given instrument (say, violin, piano or cello). Suzuki pupils usually begin lessons at about age three or four. Once the child has begun his (or her) music lessons (both private and group), quite obviously home practice plays an important role and regular practice (even if only for short daily periods) is an important part of the Suzuki Method. Easy materials and short lessons (sometimes of only five minutes' duration) are the rule for beginners; as with the acquisition of the native language, music materials must be thoroughly mastered before the next step is embarked upon. The development of the ear continues to be emphasized, however. The piece which is to be learned should always be played beforehand to the pupils every day by means of recordings; the piece is memorized in advance and then the child is taught to play it. The pupils should also continue to listen to the appropriate recordings while they are learning to play the piece. In addition to the continuing (and gradual) development of a musical sense, the Suzuki Method fosters unconscious assimilation of the material and a direct transfer from ear to performance. It has been noted by writers on the Suzuki Method that small children who have heard the recordings many times (and on a daily basis) seem to play effortlessly insofar as memory is concerned. Their attention is not distracted by reading notes or trying to recall the next note.

In order to carry out the "listening" part of the Suzuki Method successfully, it is essential to have recordings of superior quality. The piece to be learned should be listened to over and over again by the pupil; however, the child need not be forced to sit down and listen to the recording; (s)he can listen while doing something else. The music can be played in the room while the child is studying another subject or while (s)he is eating a meal. Through indirect attention, the child easily absorbs the musical sounds at an unconscious level. Some mothers prefer to play recordings as the child lies in bed before going

to sleep. Tape recordings can be made with several repetitions on the tape or use can be made of "endless" cassette tapes that repeat continuously. Corresponding to hypnopedia (or sleep-learning), the child absorbs the musical structures while falling asleep or while in a state of paradoxical (or light) sleep.

Adults should understand, Suzuki warns, that the child will not tire of the same recording as an adult might (Starr, 1976, p. 8). The small child loves familiar sounds. The child should not only listen to recordings of the pieces that (s)he is currently studying but also to recordings of the pieces that (s)he will study in the future. In the Suzuki Method, pieces are not just learned and then abruptly dropped. Some parents make tapes of a whole book of selections which include future works and pieces for review. An advanced student may enjoy listening to (or "reviewing") the earlier pieces in order to help keep them in his/her memory for group lessons and concerts.

In the development of the ear and the memory through listening and repetition, the Suzuki Method resembles Suggestopedia. In both systems, there is a transfer from ear to performance. In the Suzuki Method, the children listen to the piece before they play it; in Suggestopedia, the students listen to the dialogue being read before they elaborate upon the material the following day in conversations, games and sketches. Both methods favor indirect attention to, and unconscious absorption of lesson materials while the students are in a state of relaxation. The suggestopedic concert session presents the lesson dialogue to the students over a background of classical music. During this passive session, the students listen directly to the music and indirectly to the lesson material being read in a soft, soothing voice by the teacher. Suzuki pupils listen to recordings either while falling asleep at night or while engaged in another activity during the day, i.e., while paying indirect attention to the music.

Both the Suzuki Method and the original version of Suggestopedia favor the use of baroque music, with its clear, rhythmic patterns. It has been noted that composers used in the original suggestopedic passive or concert session were Bach, Corelli, Handel, Telemann and Vivaldi and that chamber works for violin were preferred. The Suzuki Method was originally developed for the violin as Suzuki himself was a violinist. The Suzuki violin manuals feature a good deal of baroque music, especially works by Vivaldi, Bach and Handel. Early violin materials are in the basic keys of E Major, A Major, D Major and G Major.

For the beginner, listening is the preferred memory aid in the Suzuki Method. However, for the older student, who may be unable to

memorize as effortlessly as a child, a number of Zen or yoga techniques are used—techniques which are similar to those used in the original suggestopedic session. Some Suzuki students listen to recordings with the music in front of them (corresponding to the original active session in Suggestopedia in which the students both looked at and listened to the language dialogue). According to Starr (1976, p. 140), a proven aid to the more advanced student is the purely visual one. Music can be studied visually during the time in bed before the student goes to sleep as the mind's retention is very high at this time. Starr believes that if the student has looked at the music long enough, studying the notes, (s)he should be able to "see" it as (s)he plays.

Corresponding to the use of "inner speech" in the active part of the original suggestopedic session, internal singing is recommended by such writers on the Suzuki Method as Starr (1976, p. 140):

The performer feels that he is giving sufficient attention to his music if he listens to himself play, but a far different effect is felt if the performer sings along to himself internally as he plays. This is not true singing, this internal singing, yet it is an internal sound that helps exclude verbalized thoughts much as does the mantra [in yoga].

Not only does internal singing exclude distracting thoughts but, by using this technique, one is more likely to give the music "breath and spirit," without which, according to Suzuki, music does not live.

In the West—particularly in North America—yoga and Zen tend to be associated in the minds of many educators with the mystical and the impractical. In the East, however, yoga, Zen and similar systems of meditation have a very definite practical and pedagogical value as can be seen by an examination of the original version of Suggestopedia and the Suzuki Method.

## NOTES

1. As quoted in Starr, *The Suzuki violinist* (1976, p. 13).
2. Suzuki (1963), "Every child can become rich in musical sense," as quoted in Cook, 1970, p. 30.
3. Lozanov (1978, pp. 321 ff) claims that suggestopedic instruction in Bulgarian schools achieved equally remarkable results.



## **Part IV: Suggestopedia— Versions and Variants**

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## **Suggestopedia: The Second Bulgarian Version**

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By the mid-1970s the first version of Suggestopedia which, as we have seen, was largely elaborated by Aleko Novakov at the Institute of Suggestology, had been abandoned in favor of another version largely developed by Evalina Gateva at the same Institute. The two versions of Suggestopedia are similar in a number of respects but also different one from the other.<sup>1</sup> Rumors of all kinds were rife at the time as to why Lozanov dropped version one (which was supposed to have been very successful and which had been taken up by prestigious institutes in the [then] German Democratic Republic and the [then] Soviet Union) in favor of version two (which, at the time it began being presented in Western Europe and North America, did not have the experimental data behind it). It seems probable, however, that Lozanov favored the second version of Suggestopedia for both pedagogical and political reasons. Deprived of such overtly yogic elements as the three intonations of the active session, muscle relaxation and rhythmic breathing, the second version of Suggestopedia was less likely to be attacked in the communist Bulgaria of the 1970s on grounds of “mysticism” and “hypnosis.” With more emphasis on grammar, reading and translation, the second version was less likely to be criticized by traditional Bulgarian pedagogues. The greater use of the various arts (music, painting, dancing, theatre, etc.) and their integration into the foreign language class(room) made for a greater aesthetic appeal and also provided for an atmosphere of relaxation (but relaxation in a primarily psychological sense, without any obvious physical, autogenic or yogic aspects).

In the official English translation of his thesis, *Suggestology and Outlines of Suggestopedy*, Lozanov contradicts himself on more than one occasion regarding Suggestopedia and its two versions. In chapter 6 (which, as we have seen, was not included in the Bulgarian original), emphasis is placed on the role of grammar and the correction of mistakes in the suggestopedic language class (p. 273) and a warning is issued against "turning the suggestopedic process of teaching and learning into a time only for playing pleasant games and performing theatrical sketches" (p. 333). On the other hand, suggestopedic students do almost no homework (p. 277) and, in the "teaching [of] foreign languages, the students' attention is directed to the whole sentence, to its meaningful communicative aspect, to its place and role in a given humorous everyday situation. At the same time, pronunciation, vocabulary and grammar remain to some extent on the second plane" (p. 262). Lozanov says that the teacher "should have a great deal of prestige" (p. 334) and that correct conduct on the part of staff and students is a must (p. 275). On the other hand, "the process of instruction is invariably accompanied by an atmosphere that produces an effect of relaxation or, at least, of no fatigue" (p. 257). Students learn in an atmosphere of "joy, absence of tension, and concentrative psychorelaxation" (p. 259).

It is especially regarding the yogic elements of the original suggestopedic language class that Lozanov contradicts himself. In *Suggestology and Outlines of Suggestopedy*, where, as we have seen, Lozanov removes those sections of the Bulgarian original of his thesis that dealt with the successful experiments in the presentation of vocabulary items using three (yogic) intonations, he says, nonetheless:

[T]he students preferred intonational presentation of a new material: they found it more pleasant, not at all boring, and felt no uneasiness when they had to explain to themselves why they achieved such unusually high memorization results.

In other experiments with special intonation, we got more lasting memorization than was achieved in the control group (p. 195).

Regarding the session, however, Lozanov also says that "we dropped artificial intonation [i.e., the three intonations of the active session] later on in our suggestopedic courses and retained only the artistic intonation in harmony with the music of the concert session. In this way, the intonation became more acceptable to the students" (pp. 195-196). (A more natural reading may, indeed, have been considered more appealing for the students than the "unnatural" breaking up of the

text into segments and the use of three intonations which had no connection with the meaning of the phrase[s] being read). And, he continues in the same vein somewhat further on (in chapter 6):

The active session was dropped because it did not produce the same satisfactory results as the concert session. At the same time, it constituted a danger of insufficiently trained teachers intoning unsuitable material and creating some external conditions similar to those for inducing a light form of hypnosis, something which has to be avoided altogether in suggestopedya. For the same reasons, all monotonous sounds and utterances were eliminated from the sessions, as well as the shading of the light in the rooms with curtains....

There are [in the new version of the special session] no procedures even slightly resembling hypnosis nor does the student feel any undesirable suggestive pressure on his personality (p. 269).

It does, indeed, seem likely that Lozanov dropped the original active session with its three intonations because of accusations of hypnosis. It is also quite likely that he dropped the original passive concert session for the same reason, as the same "monotonous" series of slow movements from baroque chamber music was used for each session.

As we have seen, Lozanov contradicts himself on more than one occasion in his thesis regarding the links in general between yoga and Suggestopedia. On the one hand, he says that "one could say that suggestopedya is built up on the basis of yoga techniques" (p. 267); on the other, he says that "it is unnecessary to give preliminary instruction in autogenic training, relaxation or yoga savasana" (p. 198). In the new chapter of his thesis for the official English translation, *Suggestology and Outlines of Suggestopedya*, Lozanov says :

On the basis of the results of our experimental research, the passive part of the session, with the muscle relaxation then practiced, was dropped and only the concert part of it retained with the students in a state of mental pseudopassivity as they would be at a concert—listening serenely to the musical program and to the new material being given them to learn. This creates the same atmosphere and conditions which prevail at a musical recital.... In this form the concert session has proved sufficient for attaining concentrative psychorelaxation even without resorting to exercises in muscle relaxation and rhythmical breathing (pp. 268–269).

It is entirely possible that Lozanov and his colleagues found that muscle relaxation and rhythmic breathing were not essential for the

achievement of the ideal state of relaxed alertness necessary for absorption of language materials during the concert. However, it is also possible that these yogic elements were dropped because of accusations of "mysticism." It would be very difficult for communist censors or traditional pedagogues to criticize a concert session in which the language material is read twice, first over a background of "classical music of an emotional nature" and second, over a background of "classical music of a more philosophical nature" (p. 270). As Lozanov himself says in the official English translation of his thesis, "the [new] session is acceptable from the point of view of the original level of culture and of practical experience—in this respect resembling certain forms of art" (p. 269).

The second version of Suggestopedia may be more traditional in that it attaches greater importance to grammar and translation and has few of the yogic memory-training elements of the original version. However, chapter 6 of the official English translation of the Lozanov thesis attaches great importance to the artistic means of Suggestopedia and indicates that, in a suggestopedic class, the various arts (music, painting, theatre, dancing, etc.) are to be an integral part of the lesson.<sup>2</sup> The artistic means are used not only to create a pleasant atmosphere but also to enhance student motivation (p. 262). Learning increases as a result of a holistic approach to education and, in particular, as a result of the indirect presentation of educational material (foreign language vocabulary, for example) through art forms such as singing, drawing, dancing and posters. As we shall see, in the conduct of the language class as well as in the preparation of classroom materials (especially the textbook), the second variant of Suggestopedia may be more traditional, but it is also more "artistic" than the first, or original version.<sup>3</sup>

Like the first version of Suggestopedia, the second variant illustrates Lozanov's six original principles of Suggestopedia (as outlined in the Bulgarian original and the official English translation of his thesis): authority (of the teacher) and prestige (of the educational institution); infantilization (or confidence and spontaneity of the students); double-planeness (the importance of the appearance of the classroom and the body language, tone[s] of voice and personality of the teacher); rhythm (a variety of rhythms is incorporated into the language class and into the music that is a part of the lesson); intonation (in particular, the soft, soothing voice of the teacher); concert pseudo-passivity (the psychological relaxation associated with the concert session).

The teacher in the second version of Suggestopedia should be an authority figure who, like a first-class orchestra conductor, establishes “the exceptionally important prerequisites of order and harmony in both actions and relations.” He (or she) must have a “meticulous plan” (Lozanov and Gateva, 1988, p. 88).<sup>4</sup> A “discrete distance” between instructor and students is considered very important for the educational process (*Manual*, p. 96). On the other hand, the teacher is described as a facilitator or consultant—particularly in the later stages of the course (*Manual*, p. 27); he (or she) should try to stimulate and encourage intervention on the part of the students in the form of questions or comments or story telling. The teacher must be tactful and patient and correct only those errors that interfere with natural communication—and then gently (*Manual*, p. 107). The teacher must show a “sincere faith and a profound scientific conviction in the sweeping capacities of every individual student and of the group as a whole” (*Manual* pp. 88–89). While “infantilization” is not to be interpreted as “falling into a second childhood,” the students’ attention is to be turned away from the “pain and torture” of studying (*Manual*, p. 89). “Suggestopedy is neither a direct, nor a directive, teaching technique, but a way of encouraging the spontaneous creativity of the learner with tact and double-planeness” (*Manual*, p. 27). The teacher must create a cheerful, relaxed atmosphere in the classroom and suggest to the students that learning will be enjoyable and much easier than they may have thought possible. To avoid stress, there is a preference for student monologues (as opposed to conversations) in the early stages of the beginning course and, as in Total Physical Response, the student is not forced to participate until (s)he is ready to do so (*Manual*, pp. 118–119). There are implicit similarities between the suggestopedic teacher/student relationship and that of a parent and child. As the anti-suggestive barriers to increased and improved learning are gradually overcome in the suggestopedic classroom, the students become more self-confident concerning their foreign language abilities and increase their respect for others in the group (*Manual*, pp. 120–121).

The classroom appearance in the second version of Suggestopedia is probably more illustrative of the principle of “double-planeness” than in the first version. In addition to proper ventilation and good lighting, fresh-cut flowers and soft colors are used to create a pleasant atmosphere and the walls are covered with maps, photographs and souvenirs as well as colorful and attractive posters or paintings which incorporate or illustrate elements of the foreign language to be learned—verbs,

for example (*Manual*, p. 20, p. 127). The second variant of Suggestopedia makes much more didactic use of the visual arts than the first version. As in the original version of Suggestopedia, the teacher in the Gateva version must be trained in psychology, acting and singing in order to make the maximum use of tone(s) of voice and body language in the classroom. The first encounter is considered extremely important for teacher–student rapport: everything must be done to engender, from the very first moment, the “dynamism that is so necessary in the suggestopedic process” (*Manual*, p. 28).

The second version illustrates the original principles of rhythm and intonation. The teacher must vary the rhythm of presentation and work in the language class—from slow to moderate to fast. He (or she) must also be able to vary his/her tone of voice and “emotional intonation” (*Manual*, p. 173), especially when presenting language materials during the two “concerts.” During the passive part of the concert session, in particular, the original principle of concert pseudo-passivity is illustrated in that the students are psychologically relaxed, as if they are attending a concert, and instruction is pleasant, stimulates the students’ motivation and alleviates fatigue (Lozanov, 1978, p. 269).

In addition to illustrating the six original principles of Suggestopedia, the second version illustrates the new principles of Suggestopedia as outlined in the sixth and final chapter of the official English translation of the Lozanov thesis, *Suggestology and Outlines of Suggestopedy*, viz. joy and absence of tension, unity of the conscious and the paraconscious, the suggestive link; as well as the means for realizing these new principles: psychological, didactic and artistic. The classroom atmosphere is one of mental relaxation and “concentration without tension” (p. 258). The integral participation of the two brain hemispheres of the student is realized in the process of instruction—in particular, by the use of music as a background to the reading of language dialogues and by the use of drawings or posters which incorporate in their designs linguistic elements to be learned. Through positive suggestions emanating from the teacher and from the milieu, the student’s “reserve complex” is activated and (s)he is able to learn much more than (s)he considered possible. Suggestopedic teachers are trained to motivate the students at both a conscious and an unconscious level. A holistic or Gestalt approach is used so that the students get an “overall view of all the material studied” (p. 261). Through the artistic means of Suggestopedia, a “special kind of liberating-stimulating didactic art (music, literature,

acting, etc.)” is introduced into the teaching/learning process. The various arts are not merely used for illustrative purposes; according to the Lozanov thesis, they are “built into” and become an integral part of the language class (p. 262).

Like the first version of *Suggestopedia*, the foreign language class in the second version is divided into three parts: decoding or pre-session (i.e., presentation of new material); the session (divided into an active and a passive part); the elaboration or post-session phase (during which the material is “reviewed”). The beginning course contains a vocabulary of approximately 2000 words (like the original version); classes meet for about a month for three to four hours a day. As in the original version, the lessons consist largely of dialogues in which the sentences (or phrases) tend to be short. Words of high frequency are underlined (at least in the initial lessons; in the later lessons students may do their own underlining during the “active” concert session). As in the original version, the target language is given on the left hand side of the page (or book); the Bulgarian translation is provided on the right—generally on loose sheets attached to the right hand pages of the textbook. No homework is required except for the reading of the new text. Before the first class begins, the students choose (or are assigned) the roles they will play (or the identities they will assume) throughout the course. The final “test” for the course (if the class members so wish) is a play which the students have written themselves.

A number of differences emerge, however, when we examine the general outline of the first and second versions of *Suggestopedia* for foreign language instruction. During the pre-session in version two, the material is presented in an entirely global way; the teacher avoids speaking anything but the foreign language to be learned. During the decoding phase, the instructor uses gestures, body language, mimicry, various tones of voice, to introduce the text and to describe the characters and situations in the appropriate lesson-dialogue. (Grammar is dealt with after the concert sessions). The dialogues in the second variant are longer than those in the original version and are not blocked out or divided into segments. In the first lesson (there are eight in all in the beginning Italian textbook elaborated by Evalina Gateva), some 800 lexical units are introduced. (In the following lessons, the number of new words and grammatical units decreases). Gateva’s beginning Italian textbook deals with Italy (i.e., the foreign country, as opposed to Bulgaria) and, in addition to presenting universal and general situations and everyday activities

(family, days of the week, eating out, etc.), it has a definite cultural content (quotes from Italian authors, reproduction of Italian art works, Italian songs). The original two-part session has been changed into two "concerts": an "active" one and a "passive" one. The elaboration or post-session phase provides for a "review" of material in the form of conversations, games, songs and sketches (as in the original version) but also in the form of more traditional or formal exercises involving grammar, reading and translation. This review period may be extended over a period of days to include second and third elaborations and so on.

As mentioned above, the second variant of Suggestopedia for foreign language instruction places more emphasis than the original version on certain traditional elements and, in particular, on phonetics, grammar, reading, translation and testing. Phonetics is emphasized and phonetical explanations and rules are given when necessary. Always dealt with in context, and included in practical work, grammar is presented in a spiral progression, with frequent reminders of previously presented grammatical points (*Manual*, p. 138). Even the first lesson is "saturated" with simple interrogative and negative sentences (*Manual*, p. 83). As in the original version of Suggestopedia, verbs are considered to be very important—especially those verbs of high frequency. Emphasis is placed on mastery of verb tenses (through such things as chorus conjugations, for example). Students are expected to memorize a large number of lexical items and to be able to use them in natural communication. Games and songs are a very important part of the elaboration phase but these are normally used to illustrate grammatical points. In the elaboration phase, reading is a frequent activity. The teacher may read a few sentences, then the students are asked to read in the same tempo; the teacher cries "stop" and the students are asked to report on what they have read (*Manual*, pp. 127–128). According to the Lozanov–Gateva Teacher's Manual, the "teaching of foreign languages to adults cannot do without translation" (p. 105). The students may be asked, individually and in chorus, to translate dialogues, questions, reading materials of various kinds. Tests, both written and oral—especially translation tests—are very much a part of the second version of Suggestopedia. There is a day of revision (after 15 days or 60 hours of instruction). The "final play" (i.e., the final "test" of Suggestopedia, version one) is to be given "only if the students really wish to give it. The course can also have a more solemn ending" (*Manual*, p. 27).

Although the second version of Suggestopedia contains more traditional elements than the first one, it also retains the psychotherapeutic aspects of the original suggestopedic language class. As previously mentioned, the students are assigned (or are asked to choose) new names and identities and they may play other, different, roles during the course (*Manual*, p. 69). The teacher presents his/her imaginary autobiography through songs. Regular professors from other classes may play the role of visitors to the classroom (*Manual*, p. 121). The teacher is responsible for creating a cheerful, relaxed atmosphere. Jokes and humorous anecdotes are included and students are taught how to construct concise and witty sentences (*Manual*, p. 139). Students are not forced to participate in class until they are ready to do so. Regarding questions on the students' biographies, at first the teacher may answer the questions him(her) self (*Manual*, p. 89). Errors are corrected gently and in a positive (or soft) tone of voice. Socialization within the group is considered very important (as in the first version) and all students are encouraged to derive maximum educational profit from the group. Story-telling is an important part of the elaboration phase; at first the stories are connected with the students' roles and, as in the first version, students tell their own stories, then someone else's. Props are used to tell stories as well as to provoke conversational exchange. Student teams are encouraged to come up with a story based on a given object. Other devices are used for story-telling, such as a series of questions, the answers to which form a "plot" (pp. 106–109).

As previously mentioned, games (as well as songs) are used to illustrate and reinforce grammatical points. Entire lists of games are furnished in the Lozanov–Gateva Teacher's Manual (see, for example, pp. 78 ff): guessing games, "do you like?" with props, card games, riddles, codes, numbers games, antonyms, auctions, disguises, relay races, recognition of artists, cards to illustrate foods, etc. None of these games is a gratuitous filler. All games are to be presented dynamically but they are also to be properly integrated into the lesson. According to the Lozanov–Gateva Teacher's Manual:

The usual way of elaborating the grammar consists in organizing games.... The games are of psychological importance for establishing an anxiety-free and cheerful atmosphere, which is conducive... to the creation of confidence, a lack of constraint, and a feeling of security because the game gives rise to the spontaneous unlocking of many psychological capacities....

The games should be so selected and applied that the students' conviction of having learned sufficient amounts of material is reinforced on a double-plane level. Any game that does not use to the best advantage a considerable amount of information is a game for entertainment, and this type of game results in further reinforcing the idea of agony in studying.

The games of choice should be easy, with no sophisticated and showy riddles, because the object of didactic games in suggestopedic practice is different. Their strategic logical objective is mastering the foundations of a foreign language (p. 78).

In addition to the integration of games into the language class, the second version of Suggestopedia makes use of many and diverse art forms—for both psychotherapeutical and aesthetic purposes. The goal is to involve as many of the arts as possible in a global approach to learning. Dances are used to reinforce verbs (*Manual*, p. 86); as in the original version of Suggestopedia, physical exercises are performed while numbers are learned (*Manual*, p. 114). In children's programs (and as in the Tomatis Method), children are encouraged to draw during the second "concert"; their art work is then exhibited in the classroom (*Manual*, p. 232). The theme "The Seasons" provides a suitable occasion for painting a collective canvas in an adult class (*Manual*, p. 138). Colors are used to highlight phonetics and word endings (*Manual*, p. 60). A good deal of use is made of slides, films and art reproductions (of paintings and sculptures). As already mentioned, colorful wall posters incorporate or illustrate elements of the language to be learned. (These are to be perceived peripherally by the students [*Manual*, p. 21]). The suggestopedic textbook is itself a work of art with its special *mise en page*, many illustrations, quotes from Italian authors that are linked to the lesson text, foreign-language songs.

Since Dr. Evalina Gateva, the author of the beginning Italian textbook and the principal elaborator of the second version of Suggestopedia, is herself an accomplished singer, musician and composer, it is not surprising that "artistic-didactic" songs form an important part of her suggestopedic teaching. In the songs composed (or selected) for the language class, emphasis is placed on grammar and on art. The songs must have an aesthetic appeal but, as with the games, they are chosen to illustrate and/or reinforce a grammatical point, verbs, for example: "I am, I am a happy man. You are, you are my good old friend...." (*Manual*, p. 54). According to the Lozanov-Gateva

## Teacher's Manual:

Saluto il giorno

Allegro Parole e  
musica: E. Gateva

Saluto il giorno, saluto il sole, sa-  
luto la grande città che a poco a poco si  
sveglia, respira, sorride la vita. E  
vedo un uomo andare tranquillo, pen-  
sando al mondo che deve costruire; un  
mondo nuovo, felice e puro, un  
mondo dove non c'è paura!

Figure 13.1.

Terra mia cara

Moderato Parole e  
musica: E. Gateva

*mf* Terra mia cara, bella ed antica!  
*p* Guardo le montagne, il cielo più sereno, i  
laghi, i fiumi, le valli, il mare più azzurro;  
l'animo agitato trema di gioia pura.  
Terra mia cara, abbraccia con amore, con  
fede e speranza un figlio che torna!

Figure 13.2.

[A]rtistic-didactic songs are worked out for all the lexical and grammatical topics that are important for the learning of a foreign language. When didactic material is presented in songs, recitatives, recitals, and even in the simplest rhythmic form, it is assimilated much [more easily], in much larger amounts, and with much greater retention (p. 29).

In addition to the original songs composed by Gateva, other "songs" are used in the beginning suggestopedic Italian class—songs which have a cultural content and which illustrate the Italian way of thinking, opera arias which give the students "aesthetic gratification" (*Manual*, p. 142).

An important part of the suggestopedic language class is the special session for unconscious assimilation of the lesson material. In *Suggestology and Outlines of Suggestopedy* (p. 269), Lozanov refers to the session as the "ritualization of the musical-theatrical performance," with its rich possibilities of positive associations. In their *Teacher's Manual*, Lozanov and Gateva provide details of the two parts of the special session and music lists are also provided (*Manual*, pp. 69 ff). No information is provided, however, on the musical analysis of the compositions for the concert sessions because "this will be the subject of a separate work" (*Manual*, p. 71).<sup>5</sup>

There are a number of important differences between the second version of the suggestopedic session and the first or Novakovian version. The "active" session of the original version of Suggestopedia, with its use of inner speech by the students and three intonations by the instructor has been changed into a concert in which the students look outwardly at the lesson text while the teacher reads the material over an entire piece of classical or romantic music (usually a symphony or a concerto for violin [or piano] and full orchestra). No precise rhythmic pattern is followed in the reading of the language dialogue except that the reading is to harmonize with the music and the instructor must vary his/her tone of voice as well as his/her rhythm of presentation in accordance with the material being read and the music being played. In this harmony with the rhythm, mode (major or minor), volume and melodic line of the music, the teacher's voice acts as an additional instrument of the orchestra. Especially important (i.e., italicized or underlined) lexical items may be marked by a "particular intonation," so that they stand out against the rest of the text (*Manual*, p. 111). During the pauses between movements or during the parts in the music when the teacher does not read any language material, the students glance at the translation(s) and/or the grammatical explanations of the lesson-text. They may also make notes in the textbook

itself. The active session lasts up to 45 or 50 minutes (but the time may be even longer for the one corresponding to the first lesson).

The “passive” session in the second variant of Suggestopedia is similar to the Novakovian session in that the students listen to the same material being read a second time, but now over a background of baroque music. (As in the original version, preferred composers include: Bach, Corelli, Handel and Vivaldi). In contrast to the Novakov version, however, the Gateva version of the passive session has the teacher read the lesson dialogue over the entire musical piece, not just the slow movements. During the passive concert, students sit calmly in their chairs but perform no special exercises of muscle relaxation, rhythmical breathing or visualization. The music itself is said to create an atmosphere of contemplation and relaxation and to alleviate stress and fatigue. The teacher reads the dialogue with an artistic intonation and a natural speed (that of everyday speech), making few, if any pauses. The students pay attention either to the music or to the lesson dialogue, as they wish.

Lozanov and Gateva state that “suggestopedic sessions do not consist of listening to concertos in the common, musically-educative sense. They are intended to create conditions for concentrative-psychorelaxational states of mind, under which students’ reserve capacities of learning are revealed and tapped to their utmost extent” (*Manual*, p. 77). According to the Lozanov–Gateva Teacher’s Manual:

[T]eachers should be trained in the elementary theory of music, the history of music, musical analysis, and articulation (of speech and singing). Musicality is one of the virtues of suggestopedic teaching. The timbre of the teacher’s voice, clearness of his or her diction, the quality of his or her artistic performance... are of incontestable importance for suggestopedic (pp. 70–71).<sup>6</sup>

The harmony of the music and the teacher’s voice promotes the unconscious assimilation of the language material during the special concert sessions.

The second version of Suggestopedia poses a number of problems for language teachers and students. Few language teachers have the voice and musical training required for the aesthetic presentation of language materials during the first or “active” concert session. The active concert is also very long—too long to be incorporated into anything other than an intensive course lasting three or four hours a day. Many students find that romantic music of the nineteenth century is not particularly conducive to relaxation and concentration (indeed, books on music

therapy recommend that music of an emotional nature not be used for this purpose [Bancroft, 1985a, pp. 8 ff]) and teachers such as Jean Cureau, now retired from the Lycée Voltaire in Paris, have found that inattentive students become even more restless when romantic music is played in the classroom. The first language dialogue, containing some 800 lexical items and many different points of grammar, may create confusion in beginning students used to the smaller amount of lexical material and gradual presentation of grammar found in standard textbooks. (Indeed, language teaching experts recommend that a much smaller amount of lexical material be introduced in the initial lessons and that grammar be presented slowly [Valdman and Warriner-Burke, 1980]). With many of the yogic memory-training elements removed, one wonders just how effective the memorization of large amounts of language material would be. However, these criticisms notwithstanding, language teachers should take a close look at the second version of suggestopedic language instruction because of its integration of the various arts into the language classroom. In an era in North America when the arts have disappeared from many of our schools because of lack of funding and when training in "culture" is said to be "elitist" and is sadly lacking in many of our students, the second version of Suggestopedia, elaborated by a veritable artist herself, can provide a model for both teachers and students.

## NOTES

1. For an account of the development of Suggestopedia, Superlearning, Suggestive-Accelerative Learning and Teaching (or SALT) and Psychopädie (a German version of Suggestopedia), see: "The evolution of accelerative learning from Lozanov to the present" (Felix, 1992).
2. For a discussion of the arts in Suggestopedia, see: *Creating wholeness through art* (Gateva, 1991a).
3. In an interview conducted with Dr. Lozanov when he and Dr. Gateva were in Ottawa, Canada conducting suggestopedic experiments for the Canadian government in the fall of 1995, he confirmed that he preferred the second version of Suggestopedia because it was more artistic and also more holistic (as opposed to the "paired-associate" approach to language in the original, or Novakov, version).
4. All succeeding references to the Lozanov/Gateva *Foreign language teacher's suggestopedic manual*, the title of which will henceforth be abbreviated as *Manual*, will be indicated, in brackets, within the text of this chapter.

5. For information on the criteria used to select music for the suggestopedic session(s), see Bélanger, 1978, pp. 210 ff. See also Schuster's SALT music lists (1986, pp. 148 ff).
6. Not too much information was provided, at least initially, on how to train or position the voice for suggestopedic teaching. Visitors to the Institute of Suggestology were simply impressed by the instructors' "beautiful voices." However, Evalina Gateva, who herself possesses a beautiful voice, provides valuable voice-training information in "Suggestologists' and suggestopedagogues' spoken and vocal voice training" (1991b).



## Schuster's SALT

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In the early 1970s, following the publication of the Ostrander-Schroeder *Psychic Discoveries behind the Iron Curtain*, a number of knowledgeable researchers and educational psychologists in the United States—most notably Donald Schuster, Owen Caskey and Allyn Prichard—expressed interest in, or commenced experiments on Suggestopedia. The circulation of an unofficial English translation of the Lozanov thesis, *Sugestologiia*, as well as the publication of a number of articles by myself and others on what was called the Lozanov Method, also stimulated interest and research. Early pilot studies which were published in the newly founded *Journal of Suggestive-Accelerative Learning and Teaching* (which then became the *Journal of the Society for Accelerative Learning and Teaching* and now the *Journal of Accelerative Learning and Teaching*) showed that Suggestopedia (or what was known of it at the time) held promise. My 1975 article, “The Lozanov Language Class,” providing details on the first (or Novakovian) version of Suggestopedia served as the basis for controlled experiments conducted by researchers affiliated with the Society for Suggestive-Accelerative Learning and Teaching. (The name was changed in 1980 to the Society for Accelerative Learning and Teaching and in 1994 to the International Alliance for Learning).

In addition to conducting his own research at Texas Tech University, Owen Caskey supervised theses such as Elizabeth Robinett’s “The Effects of Suggestopedia in Increasing Foreign Language Achievement,” which showed that Suggestopedia had a positive effect on language learning. (“Individual analysis of achievement revealed that the Suggestopedic approach helped students in the lower grade point average

ranges more than those with higher grade point averages" [Caskey, 1976, p. 353]). In their investigation of the influence of a suggestive atmosphere, synchronized music and breathing on the learning and retention of Spanish words, Ray Bordón and Donald Schuster (1976, p. 27) found that, "at a practical level, these variables when present resulted in learning 2.5 times better than when these same variables were absent." In the 1975-76 remedial reading experiments conducted by Jean Taylor and Allyn Prichard in Atlanta, 75-80 per cent of the pupils gained a year or more on the Spache oral and silent reading sub-tests after 14 weeks in the program, only 12 of which were devoted to the actual teaching of reading (Prichard and Taylor, 1976, p. 111). Researchers generally concluded that three elements of Suggestopedia were essential for the system to work effectively in an American setting: (a) an attractive classroom (with soft lighting) and a pleasant classroom atmosphere; (b) a teacher with a dynamic personality, able to act out the material and motivate the students to learn; (c) a state of relaxed alertness in the students (Bancroft, 1978b, p. 172).

By the time Dr. Lozanov came to lecture to the members of the Society for Accelerative Learning and Teaching in the late 1970s, the suggestopedic method had changed. Instead of presenting the Novakov version (Suggestopedia 1) which was largely based on yoga, Lozanov and his new assistant, Evalina Gateva, presented a somewhat different version, one that was more artistic, but which was deprived of many of the earlier, yogic memory-training and relaxation elements. Researchers subsequently took up elements of the Gateva version (Suggestopedia 2) but also retained elements of the former version (as it had been described in my article "The Lozanov Language Class"). More importantly, however, they greatly enlarged upon the relaxation and visualization elements as well as the positive suggestions for pleasant learning contained in the two versions of Suggestopedia, modified Bulgarian language programs to appeal to an American audience and created "suggestopedic" programs for a wide range of school and college subjects. In addition (and in contrast to Lozanov himself), they provided a solid, statistical basis for suggestopedic research. The results of the research of Owen Caskey, Donald Schuster and Allyn Prichard can be seen, not only in their articles in the *Journal of the Society for Accelerative Learning and Teaching* but also in their books on the subject: Caskey's *Suggestive-Accelerative Learning and Teaching* (1980); Schuster's *Suggestive-Accelerative Learning Techniques* (1986); Prichard's *Accelerating Learning: the Use of Suggestion in the Classroom* (1980).

While the work of all three researchers in accelerated learning has been important, the leader in Suggestive-Accelerative Learning and Teaching (or SALT) research is generally acknowledged to be Dr. Donald Schuster, retired professor of Psychology at Iowa State University, founder and longtime editor of the SALT journal and trainer of hundreds of teachers in SALT strategies. Let us now focus on the SALT Method (or SALT variant of Suggestopedia) as it has been described in Dr. Schuster's many articles and, most particularly, in the book which he co-authored with Charles Gritton, *Suggestive-Accelerative Learning Techniques*. (An earlier version was the SALT manual of classroom procedures based on the Lozanov Method).

In the introduction to the Schuster-Gritton book, we find the following definition of the Suggestive-Accelerative Learning Techniques (or SALT) Method:

[It] uses aspects of suggestion similar to advertising and unusual styles of presenting material to accelerate classroom learning. The essence of this technique is using an unusual combination of physical relaxation exercises, mental concentration and suggestive principles to strengthen a person's ego and expand his or her memory capabilities while material to be learned is presented dynamically with relaxing music.<sup>1</sup>

According to Schuster, Dr. Lozanov was the first to put all of these component elements together in "an integrated and highly effective learning procedure," viz. Suggestopedia (p. 1).

The SALT Method incorporates (and, indeed, elaborates upon) the basic theoretical elements of Suggestopedia 1 (authority, infantilization, double-planeness, intonation, rhythm and concert pseudopassivity) as well as the three principles of Suggestopedia 2: joy and absence of tension and concentrative psychorelaxation; the unity of conscious and paraconscious and integral brain activity (i.e., whole-brain learning); the suggestive link on the level of the reserve complex. (Suggestion is used to tap the normally unused reserves of the mind for increased learning). The suggestopedic means of version two (psychological, didactic and artistic) are also a part of the SALT Method.

In addition to providing more detailed information on the ways of using suggestion in the classroom, the Schuster-Gritton book, influenced by the work of Milton Erickson, goes into greater depth than Lozanov's on the theoretical aspects of suggestion. As opposed to the commonly accepted technical definition of suggestion, i.e., the transmission or influence of ideas and their uncritical acceptance by the recipient, Schuster prefers a "humanistic" definition, viz. suggestion as

indirect communication, indirection, hinting or intimating. Suggestion in the SALT Method is closer to suggestion as used in advertising or in the arts. In the SALT classroom, suggestion may be direct or indirect, verbal or nonverbal. Verbal suggestion may be direct (as in "learning will be easy for you today") or indirect (as in a question such as "Are you willing to find that out [with respect to today's lesson]?" or a truism such as "Sooner or later you are going to do extremely well in class") (pp. 63 ff). Direct nonverbal suggestion comprises gestures and mime to get students to imitate the teacher; indirect nonverbal suggestion includes eye contact, manner of speaking, physical posture and location while talking in class (with reference to the teacher); peer success and peer pressure (with reference to the students); and the environment (with reference to the classroom). Regarding environmental nonverbal indirect suggestion, such elements as a semicircular arrangement of chairs, light colors, soft lighting and relaxing background music are important as they make the classroom more inviting for the students.

Suggestion in both Suggestopedia and the SALT Method also involves desuggestion and the overcoming of barriers that interfere with teaching and/or learning. Lozanov's barriers to communication, teacher-student interaction and accelerated learning (viz. moral-ethical, rational-logical and intuitive-emotional) are expanded by Schuster to include: (a) socially or culturally accepted patterns; (b) body language signals that are culturally instinctive; (c) subliminal communication; and (d) verbal confusion due to images generated by the recipient in interpreting the sounds received (p. 13). The teacher has (or may have) barriers or psychological characteristics that interfere with successful teaching; the students have barriers that interfere with learning. Suggestion in its various forms (including auto-suggestion) can be used to work around student barriers to accelerated learning as well as teacher barriers to improved teaching. "The teacher's goal is to integrate all types of classroom suggestions with conscious and paraconscious elements skillfully combined to lead the students to expect that learning will be easy, fun, efficient and long-lasting" (p. 74).

The Schuster-Gritton book is also more detailed and straightforward than Lozanov's when it comes to the theoretical (as well as the practical) aspects of whole-brain learning. "Linguistic symbols such as language are generally associated with slightly increased cortical activity in the left cerebral hemisphere, while listening to music and visualizing a picture are associated with increased right hemisphere activity" (p. 74). Generally speaking, schools emphasize verbal or

so-called left brain activities and neglect activities that appeal to or stimulate the right brain. According to Schuster, "research on teaching wherein more than one area of the brain is involved shows that both learning rates and retention can increase dramatically" (p. 75).

In his discussion of general theories of brain functioning, Schuster elaborates on Lozanov's idea that multiple sensory inputs (auditory, visual, motor) improve memory and accelerate memorization. Teachers should emphasize the "interactive contributions of the right and left hemispheres to the mastery of any given skill" (p. 81) and use various modes of presentation in the classroom. Vocabulary, for example, should be taught orally, visually and through physical movement (such as that used in Total Physical Response).

As far as practical applications are concerned, Schuster's SALT follows the general outline of Suggestopedia 1 and 2 in that the lesson is divided into three parts: review of previously presented material; dynamic presentation of new material; repetition of new material to be learned during a "concert session" while the students are in a relaxed, but nonetheless receptive state. Students in a SALT language class (SALT is used, however, for all subjects and not just language) engage in role-playing, games, songs and a final play; attractive, colorful postures and pictures decorate the classroom and/or present lesson points peripherally. During the "review" or "activation" phase, however, in addition to strategies taken from Suggestopedia, SALT uses techniques taken from American approaches such as Asher's Total Physical Response and Galyean's Confluent Education. The first, or "active" concert of Suggestopedia 2 is optional; if used, however, the students are encouraged to visualize images, whether teacher-prepared or their own (p. 125). The second concert over baroque music, preferably the slow movements in 4/4 time as in Suggestopedia 1, is considered essential for accelerated learning. (SALT students use rhythmic breathing during this concert). SALT makes use of different kinds of music in the classroom: classical, baroque and "subject-appropriate" (e.g., German folk songs in a German class), thus following the dictates of Suggestopedia; however, in contrast to Suggestopedia, meditative music (or mood music) is used as a background for mind-calming exercises and guided imagery trips in a SALT class. According to Schuster, the use of appropriate types of music helps learning (pp. 148 ff). Music is a placebo, a relaxant but it provides another association to promote or stimulate memory (p. 153).

According to the SALT approach, the teacher should create a favorable atmosphere for learning through suggestions in the form of

positive statements as well as suggestions which appeal to the unconscious mind in the form of body language, attitude and expectations. In everything the teacher does and says, there should be a harmony between the conscious and unconscious, the verbal and the nonverbal levels. Guided imagery (for example, goal setting imagery) and visualization are incorporated into the lesson presentation. Through word and gesture, the teacher establishes and sustains a suggestive, positive atmosphere in which the students understand that effective learning will take place. While the teacher must teach, the students, however, must be in a mental and physical state which enables them to learn. Unlike many educational methods which stress the importance of the teacher and/or various kinds of audio-visual aids and equipment but which neglect to take into account student receptivity, the SALT Method lays great stress on the students. To prepare themselves prior to the presentation of didactic material (for example, just before the lesson begins or just prior to the "concert session"), they perform, if need be, various types of physical and/or mental relaxation exercises. The teacher's suggestions will be more effective if the students' minds are calm and if they are physically relaxed. According to the Schuster-Gritton teacher's manual, students learn better when they are relaxed and when they are in a non-threatening, secure situation. Learning is difficult when students are restless or tense and nervous.

In addition to transforming a Bulgarian system designed for teaching intensive language courses into one suitable for the teaching of various subjects in a normal American school situation and to providing a statistical basis for research into accelerated learning, the Schuster/SALT contribution is one of providing a precise and valuable outline of relaxation procedures for use in the classroom. The preliminary preparation phase, considered so important for accelerated learning, is divided into three parts: (a) physical relaxation; (b) mental relaxation or mind-calming; (c) suggestive set-up (pleasant learning [re]stimulation). The sequence of these exercises is important: physical relaxation should precede mental relaxation. (Physical relaxation exercises are considered especially necessary for restless and anxious students). A state of physical relaxation makes it possible for students to relax their minds with mind-calming exercises which are either teacher-directed or self-directed (following upon teacher-given instruction). Suggestion, in turn, is more effective when a student is mentally relaxed. An exercise of pleasant learning (re)stimulation convinces the physically and mentally relaxed students that learning will be easy, efficient and long lasting.

As outlined in the original SALT manual of classroom procedures based on the Lozanov Method and in *Suggestive-Accelerative Learning Techniques* (pp. 109 ff), exercises include (but are not limited to) the following:

### PHYSICAL RELAXATION EXERCISES

1. Reach and stretch. While standing, raise and stretch one arm as much as possible and hold this position for two to three seconds, return the arm to the side, then reach and stretch with the other arm. (Students may also be requested to stand up, bend over and try to touch their toes).
2. Tension waves. Divide the body into six sections, tense one section at a time and hold, progress from the feet, to the calves, to the thighs, to the lower abdominal muscles, to the upper abdominal area, to the chest. Hold, then relax the body parts in reverse order. It is possible to do the contractions in a wave-like motion after a little practice.
3. Three turtle exercises: (a) Tense one side of the neck, then the other side and the front. (b) Let the head flop forward and touch the chest, then lift the shoulders behind the head, then pull the head up with the neck, tighten the back of the neck, let the head flop forward again. (c) Lift the shoulders and rotate the head, with neck tensed, three times in one direction, then three times in the opposite direction; turn the neck once or twice without tension.
4. Side bends. Standing straight with the hands to the side, slide the hand down the side of the leg below the knee while bending the body sideways as much as possible. Repeat with the other side.
5. Eye rotation. First look upward to the maximum extent possible. Then rotate the eyes so as to look to the upper right as high as possible, then to the right horizontally as far as possible. Continue down to the lower right, then straight down, lower left, extreme left, upper left. Rotate the eyes slowly two to three times to the right in a clockwise direction, then do the reverse two to three times. Next imagine holding something a foot or so in front of the eyes and focusing on it. Then imagine looking at something far off on the horizon. Focus your eyes back and forth several times. Finally, rub your palms together briskly several times and place your palms over your open eyes, imagining energy flowing into your eyes to relax and energize them. Hold this position for one to two minutes.

## **MIND-CALMING EXERCISES**

There are several types of exercises that can be used to calm the students' minds after they have relaxed physically. These include: watching one's breathing (Zen breathing); the little white cloud exercise; walking along the beach; climbing a mountain to view a beautiful sunrise; Romen relaxation (a combination of Jacobson's progressive relaxation and Schultz-Luthe's autogenic therapy). The little white cloud exercise has the following pattern:

Imagine that you are lying on your back on the grass on a warm summer day and that you are watching the clear blue sky without a single cloud in it (pause). You are lying very comfortably, you are very relaxed and happy (pause). You are simply enjoying the experience of watching the clear, beautiful, blue sky (pause). As you are lying there, completely relaxed, enjoying yourself (pause), far off on the horizon you notice a tiny white cloud (pause). You are fascinated by the simple beauty of the small white cloud against the clear blue sky (pause). The little white cloud starts to move slowly toward you (pause). You are lying there, completely relaxed, very much at peace with yourself, watching the little white cloud drift slowly toward you (pause). The little white cloud drifts slowly toward you (pause). You are enjoying the beauty of the clear blue sky and the little white cloud (pause). Finally the little white cloud comes to a stop overhead (pause). Completely relaxed, you are enjoying this beautiful scene (pause). You are very relaxed, very much at peace with yourself, and simply enjoying the beauty of the little white cloud in the blue sky (pause). Now become the little white cloud. Project yourself into it (pause). You are the little white cloud, completely diffused, puffy, relaxed, very much at peace with yourself (pause). Now you are completely relaxed, your mind is completely calm (pause), you are pleasantly relaxed, ready to proceed with the lesson.

## **SUGGESTIVE SET-UP**

The suggestions contained in this section develop in the students a positive attitude toward learning. Exercises include early pleasant learning recall and lifelong learning. While "lifelong learning" is general in nature and directed towards the future, "early pleasant learning recall" is intended to bring back precise memories from the past. The purpose of the latter exercise, as outlined below, is to stimulate or bring to the fore the sensations, feelings and abilities which students had much earlier in their lives, for example, during a period when bedtime stories were being read to them. Typical instructions follow a Gestalt pattern

in which the nonverbal components of the previous situation provoke a recall of the appropriate verbal and cognitive aspects.

Return to an experience which made you eager to learn. Get the details of this early pleasant learning experience in your mind as vividly as possible. Use your imagination to fill in the following information, if you need to, in order to put yourself in the situation once again. Where were you? (pause) Were you in a room? (pause) Were there people around you? (pause) Who were they? (pause) How did you feel about what you were reading or learning? (pause) Take a look at yourself in this learning situation. How did your hands feel then? Everyone's hands feel different when they are excited (pause). Recall that feeling and let it spread up your arms (pause). Let that feeling spread from the top of your head to the bottom of your feet (pause). Recall how your whole body felt (pause). Recall how naturally motivated you were (pause). Recall the thoughts you were thinking (pause). Take a look at the eager feeling you had that day long ago (pause). Maximize that feeling, hang on to it (pause), bring it here today and use it to learn and enjoy learning as much as you did that day long ago (pause). With positive thoughts and feelings you will remember today as well as you did that day in the past (pause). You still have the ability to remember just as well today.

Since its beginnings in the 1970s, the SALT Method has been frequently, indeed continuously evaluated in field experiments in American public school classrooms and its individual components have been evaluated in analytic laboratory studies with college students. The subject matter in these studies has a wide range from reading, spelling, mathematics, science and art to beginning German and Spanish. Grade levels have ranged from first grade in elementary school to college freshmen. Studies consistently show that students trained with the SALT Method have significantly higher achievement scores and better attitudes than those in the control groups. The lab studies have provided significant support for the major component features of the method (p. 2). Insofar as foreign language achievement is concerned, studies with tight experimental designs have consistently shown that the SALT variant of Suggestopedia produces a two or three times greater foreign language achievement than conventional methods (p. 34).

## NOTES

1. Schuster and Gritton, 1986, p. 1. All succeeding references in this chapter to the Schuster/Gritton *Suggestive-accelerative learning techniques* will be indicated, in brackets, in the text, and without mention of the authors' names and the date of publication.



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## CHAPTER 15

# Dhority's ACT

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Educational psychologists were not the only individuals to conduct or direct scientific research into Suggestopedia in the early 1970s. Language teachers figured prominently in early research efforts and, in point of fact, Marina Kurkov is generally acknowledged to be the first person in the United States to apply Suggestopedia (or what she termed "a modification of Lozanov's suggestopedia") to the teaching of beginning Russian at the Cleveland State University in the fall of 1971. When comparing the results achieved by the two classes involved, an experimental and a control group, it was found that the experimental group covered twice as much material in the same amount of time as the control group. The results corroborated Dr. Lozanov's contention that "in a given amount of time students who are taught by his method learn more, faster, with less effort and retain their knowledge better than other students" (Kurkov, 1977, p. 27). Other, early language teaching researchers into Suggestopedia such as R. W. Bushman and Elizabeth Philipov also found that Suggestopedia (or elements of Suggestopedia) improved the learning of foreign languages.<sup>1</sup>

A second, parallel development occurred in the 1970s, especially following the visits of Georgi Lozanov and Evalina Gateva to the United States to present demonstrations of, and workshops on Suggestopedia in the latter part of the decade. Innovative language teachers inspired, in particular, by the artistic qualities of the second (or Gateva) version of Suggestopedia, began writing their own dialogues, combining Suggestopedia with successful strategies they were already using in the classroom and/or with relaxation and visualization

exercises taken from SALT or related methods.<sup>2</sup> Among those who elaborated their own distinctive language teaching methodologies, one of the most creative was certainly the late Charles Schmid who founded the LIND Institute (for Language in New Dimensions) in San Francisco in 1976.<sup>3</sup> However, in the opinion of this writer, it is Dr. Lynn Dhority, retired Professor of Language and Literature at the University of Massachusetts and trained by Lozanov and Gateva in Suggestopedia in 1979 who, with his book on the ACT Approach (for Acquisition through Creative Teaching), best demonstrates the creative possibilities of suggestopedic applications (or adaptations) in the United States.<sup>4</sup>

In the preface to, and the first chapter of his book, *The ACT Approach*, Dhority states that his method, Acquisition through Creative Teaching, seeks to provide a holistic, whole-brain model for language acquisition in a positive and relaxed atmosphere and a multi-sensory learning environment.<sup>5</sup> Dhority's approach is "heavily indebted to Lozanov" (p. 18) and to Lozanov's belief that students have extraordinary, untapped learning capacities which can be brought out by a competent, personable teacher skilled in the proper use of suggestion in the classroom. ACT is based on the principal theoretical elements of Suggestopedia 1 (viz. authority, infantilization, double-planeness, intonation, rhythm and concert pseudo-passivity) as well as on the three principles (joy and absence of tension; the unity of conscious and paraconscious [or subconscious]; the suggestive link [or the use of suggestion to tap non-conscious resources]) and the three means (psychological, didactic, artistic) of Suggestopedia 2. As we shall see, in practice, ACT also combines elements of both versions of Suggestopedia. However, Dhority's approach in both theory and praxis also incorporates "many invaluable contributions" (p. 18) made by American educators and researchers: Leslie Hart and his theories of brain function and brain-compatible education; Schuster and SALT; Bandler and Grinder and Neuro-Linguistic Programming; Robert Rosenthal and *Pygmalion in the Classroom*; Stephen Krashen and his hypotheses about language acquisition; James Asher and Total Physical Response (TPR); Tracy Terrell and his communicative-based Natural Approach (or NA).

Dhority used his ACT Approach to teach German at Levels 1 and 2 at the University of Massachusetts<sup>6</sup> in an intensive format and with small classes (12-16 students). Classes met for three sixty-minute periods (from 9 to 12:30 with breaks), five days a week for six weeks (90 hours total). Regular attendance was a must but the fear of failure was

removed in Level 1, in particular, in that the course was graded on a pass/fail basis, with attendance guaranteeing a pass.

Following the example of Lozanov (and Rosenthal), Dhority lays great stress on the role of the teacher and on his/her ability to motivate the students in the classroom through the creation of a positive psychological atmosphere. The teacher must be competent in his/her field and must manifest a genuine enthusiasm for his/her subject area (p. 46). While projecting a natural sense of authority and self-esteem, the teacher must also show genuine interest in, and concern for the students as a group and for each individual student. Student-teacher rapport should be easy and relaxed. Group dynamics should be positive and supportive. In the cultivation of a positive presence in the classroom, the "evocative power" of words and images chosen by the teacher is very important (pp. 59 ff), but so, too, are such factors as attitude and mood, facial expressions, voice quality, intonation (for example, "anchoring" as used in Neuro-Linguistic Programming [or NLP]), rhythm of speech, body language (such as NLP physical "mirroring"), and even dress. According to Dhority, the "messages contained in such unconscious forces can literally create success or failure in our classroom(s)" (p. 45). First impressions are critical when it comes to establishing good teacher-student rapport as well as a positive student attitude toward the subject that is to be taught and Dhority stresses the importance of welcoming the students to the class and of giving them, from the beginning, positive suggestions for pleasant learning. (These positive suggestions may be in the form of images and affirmations, guided visualizations, the story-as-metaphor, relaxation fantasies, SALT early pleasant learning recall.

In accordance with the theory of Suggestopedia, Dhority emphasizes the importance of the physical environment in which the language learning is to take place. The classroom should be esthetically pleasant, attractive, colorful, comfortable, "engaging to the senses" (p. 44). Full-spectrum (as opposed to fluorescent) lighting should be utilized. To soften acoustics and provide a comfortable surface for games and relaxation exercises, the floor should be carpeted. Pictures (ethnic landscapes and cultural scenes), charts, maps and colorful posters hang on the walls. These peripheral stimuli are both esthetic and instructional and change regularly so that they are integrated with the lesson content. (Following Suggestopedia 2, ACT makes great use of posters which blend language paradigms with decorative, visual shapes and colors. As L. Hall [1982] demonstrates, remarkable learning results have been achieved when visual stimuli are integrated into the

instructional environment without the instructor's drawing conscious attention to them [p. 77]). Living plants and/or fresh-cut flowers grace the room. The students are seated in a semi-circular or crescent-shaped arrangement in comfortable chairs (with head and arm support) and to promote greater student-student contact, they are encouraged to change seats every time they enter the room ("fluid seating" [p. 78]). The classroom has good ventilation, windows and plenty of natural light. Easels, flip charts and/or white boards with color markers are used instead of the traditional blackboard.

A good-quality stereo music system is used to provide the various kinds of music used in the ACT Approach. (These include: baroque fanfares to introduce the class; classical and baroque music for the concert sessions; the music of Mozart and other great composers for low volume background music during the class itself;<sup>7</sup> "subject-appropriate" music for songs and dances; mood or "New Age" music for relaxation and guided fantasies or visualizations). Video equipment is available for the taping of classes. When the students enter the room before the class begins and/or during breaks, they have at their disposal a refreshment area with hot water for tea, coffee and chocolate. All elements of the physical environment in the Dhority ACT Approach are meant to suggest a new, different and positive learning experience.

In accordance with *Suggestopedia 2*, the Gateva version of *Suggestopedia*, the ACT Approach accords great importance to the text and, more specifically, to a text specially written for the course. The beginning language manual, which introduces 1500-2000 new words during the 90-hour Level 1 course, is written as a series of approximately nine "Acts" and comprises a coherent dramatic story with authentic characters and situations. The Acts are some 500-700 words long; the first, which is the longest, introduces some 500 new words. The Acts are written in a dialogue format, in parallel columns, with the target language in the left column and the native language equivalent in the right column. Following the precepts of the Natural Approach, there is no formal sequencing of grammatical concepts although earlier Acts are written in simpler, though nonetheless authentic language. Basic grammatical structures and paradigms with examples are presented in appendices and are used as reference materials by the students. The text is amply illustrated with images and photos designed to suggest and reinforce the content being presented. Unbound, the ACT text is contained in an attractive three-ring binder. Because new material can be withheld, suspense and

interest in Acts yet-to-come is heightened. With this format, it is also possible to revise and supplement the text on a regular basis.

The ACT text combines language content with “embedded suggestions” at many levels to help the students learn (p. 87). (When the text is musically introduced to the relaxed and receptive students during the concert session, the “suggestions” will have considerable impact). Direct suggestion is embedded in the text—for example, in introductory and instructional statements. Students are encouraged to enjoy the drama, the humor and to participate fully in the proceedings. Indirect suggestions are also embedded in the text; characters in the drama encounter similar challenges and obstacles to the ones the students encounter. Lively, dramatic, filled (in accordance with the Krashen hypotheses) with a large volume of natural, authentic input and situations for conversational reenactment as well as positive suggestions for pleasant learning, the ACT text has as its purpose to promote language acquisition in every way possible.<sup>8</sup>

The beginning German course in the ACT Approach begins with a “cocktail party” during which the new roles and identities are distributed to (or rather, chosen by) the students. A list of professions or roles is presented on colorful charts and each student is offered a prop to accompany his or her choice (dancing shoes for a dancer, for example). Before the cocktail party begins, students are led through their first of many musical experiences by singing an identity song: “Ich bin ich.” During the imaginary cocktail party itself, students make the rounds introducing themselves briefly in German. As in *Suggestopedia 1* and *2*, a playful, relaxed atmosphere is established but one which has important psychological (or psychotherapeutic) implications: the students leave behind their old, “limiting” identities and assume new roles, ones which are “limitless” in possibilities for learning.

Normally, however, the ACT Approach follows the precepts of Krashen and Terrell in the Natural Approach as well as Asher in Total Physical Response in that comprehension should precede production and production should be allowed to emerge in stages. According to Dhority, the reason for encouraging students to venture speech production within the first hour of the course has to do with the group bonding process and the building of teacher–student and student–student rapport as well as with the affirmation of the newly assumed student roles. Apart from the initial “party,” ACT uses TPR strategies, NA picture files and other listening comprehension activities during the first 10–15 hours of the beginning language course. (Words, phrases and diagrams are, however, written or sketched on

easel pads with color markers and gradually, single sheets of illustrated vocabulary and phrases are given to students to supplement classroom activities). Following a "silent period," student speech production is then allowed to emerge in stages. (This is in direct contradiction to Suggestopedia but, following the theories of Krashen, Terrell and Asher, Dhority says he has experienced "even better results" by delaying the introduction of the text [or language manual] and the first real invitations for oral production until at least after the tenth hour of class [p. 84]).

Following the opening "cocktail party" and an initial period of listening comprehension activities based on TPR and NA during which considerable linguistic material is introduced, the ACT Approach generally follows the format of Suggestopedia in that the class is divided into three parts: presentation of new material, concert presentations, activation phase (or period of review). Dhority calls the formal presentation of text material before the concert session the "global prelude" and says that it has two purposes: (a) to give a rapid preview of material and create a context for what is to follow; (b) to suggest indirectly to the students that what is coming is interesting, engaging and comprehensible (p. 98). During the global prelude, the teacher acts out the content of the text using gestures, props, peripheral aids in the room (including posters with key phrases from the lesson material).

When discussing the concert session, Dhority proclaims his agreement with Lozanov's theory that music creates a relaxed state and carries the material to be learned into the brain. (The ACT Approach is also in agreement with contemporary theories of whole-brain learning in which music is generally considered a "right-brain" activity and language an activity which appeals to or engages the brain's left hemisphere). In his intensive language classes, Dhority uses the two concerts of Suggestopedia 2 (but not, however, every day; concert sessions are offered about every eighth hour of the course and are always structured to end that particular day's class). For the first or "active" concert, which he shortens (and quite rightly, in the opinion of this writer) from 50 minutes to 30, he prefers such classical composers as Haydn, Mozart and Beethoven to such romantic composers as Brahms, Tchaikovsky and Rachmaninoff. Insofar as the second or "passive" concert is concerned for the reading of the same lesson material, Dhority follows the dictates of Suggestopedia 1 in using only the slow movements from such representative baroque composers as Bach, Corelli, Handel, Telemann and Vivaldi. In a note,

he says that "in my own experience, the slow movements seem to sustain the relaxed atmosphere better" (p. 216). Dhority appears to have no "coming out" phase during which allegro music may be played; the adagio music of the "passive" concert (which lasts about 10–15 minutes, i.e., a shorter period than in Suggestopedia) merely continues playing for several minutes after the teacher has finished reading the dialogue. In accordance with Lozanovian theory, the concert presentations constitute for Dhority a kind of "ritual" (p. 101) and great importance is attached to their preparation and performance.

In his discussion of the activation phase (or review of previously presented material), once the period of listening comprehension is completed, Dhority essentially follows Suggestopedia 2 although he provides a better organizational framework than his Bulgarian sources of inspiration. Dhority divides the activation activities into two categories: primary and secondary (pp. 106 ff). Used for a block of text approximately 250 words in length, primary activation activities are:

1. whole group choral echo/antics in which the students echo the teacher's model reading of the text, complete with expressive gestures and a vivid imagining of the images in the text as they speak;
2. role reading in twos or threes (the number reading depends on the number of roles available in that particular section of the text-dialogue);
3. individual or small group role reading for the class with costume props (which help keep the focus off the "real" personality of the readers);
4. comprehension check in which students, as a group, answer the question, "What does that mean in English?" (Although this activity is translation under another name, an exercise-like quality is avoided by the teacher's expressiveness and tone of voice).

In the early stages of the language course, as the major source of "comprehensible input," the teacher does most of the talking. As student comprehension increases, so, too, does student confidence and a desire to speak. The goal of the secondary activations in an ACT class is to provide authentic opportunities for communication, rather than drills and exercises. According to Dhority, this phase is characterized by "playful, imaginative, spontaneous ways of encouraging full and authentic receptive and expressive communication" (p. 109). The secondary activation phase, in contrast to the primary one, does not

attempt to stay too close to the text. As described in *The ACT Approach*, secondary activation activities are:

1. appeals to the imagination in the form of students' new biographies and "stories" as well as guided fantasies in the target language (for example, an imaginary trip to a foreign country) which utilize embedded positive suggestions and images;
2. props (including costume articles [especially hats]); physical objects (these are used also during the early stages for TPR activities); pictures (picture files are taken from the Natural Approach), slides, videotapes; puppets (especially the humorous Onkel Fritz [inspired by Suggestopedia 2] with whom the students are able to communicate more freely than with a real person such as the teacher);
3. singing, physical movements, miming and dancing (these activities are used for linguistic purposes [for example, hand clapping for learning numbers, mime for learning verbs]; to create a German [or ethnic] atmosphere in the classroom; and to encourage spontaneity on the part of the students);
4. dramatizations (the dramatization of language material in interesting and humorous situations is basic to the ACT Approach); as in other communicative-based approaches, short skits such as arrival in a foreign country, phone calls, changing money, a café scene, a taxi ride, a bus trip and so on, are frequently used;
5. games (which create a play like atmosphere but which also facilitate linguistic performance); these include "playing ball" (from Suggestopedia), card games, Simon says, and so on. During the secondary activation phase, students bring to life the material they have received and encoded during the receptive, musical presentations. Although most of the new vocabulary is presented in the concert sessions, the activation phases (the secondary one, in particular) continue to offer new input. In addition to vocabulary, through authentic communication experiences and activities which "playfully stimulate the imagination" (p. 113), students learn intonation, timing and gestures—so important for true communicative competence.

While the ACT Approach is primarily interested in fostering language acquisition (as opposed to language learning) and Dhority states in his book that he is opposed to the current obsession with "testing, judging, measuring, evaluating and demonstrating" (p. 176), an obsession which he sees as having a negative impact on both students and teachers, Acquisition through Creative Teaching does not neglect such elements of the traditional language course as error correction, grammar, homework, evaluation and testing. Dhority's (and the students')

subjective evaluations of very positive course results are backed up by videotaped records, results of the MLA exam in German and the ACTFL Oral Proficiency Interviews.

Like other acquisition-focused approaches, ACT tends to minimize direct correction of student errors in speaking, especially in the beginning stages. Errors which would interfere with comprehensibility are corrected, but softly. In accordance with the Krashen idea that the conscious study of grammar has only modest value in the language acquisition process, ACT gives much less formal attention to grammar than traditional methods. However, Dhority states that he is not totally "anti-grammar" (p. 117) and that his method seeks a balance between learning and acquisition strategies. As in *Suggestopedia 2*, grammar is presented passively in the form of attractive, colorful posters which display structures and paradigms. The posters are put up before the forms (of the past tense, for example) are emphasized in class. The students are allowed to "register abstracted grammar peripherally and semi-consciously." Following Lozanov, Dhority believes that the "powerful semi-conscious level can be activated for the teaching of grammatical material, a task which is traditionally conducted almost exclusively at the conscious, memorization level" (p. 117). However, even in the beginning course, students are assigned a moderate amount of grammar study and practice exercises at home using a supplementary or auxiliary text. While there is no demand for "active mastery" and Dhority is aware that his students are not able to perform as well on discrete-point grammar tests as members of regular, traditional classes, ACT students are nonetheless given exposure to a comprehensive range of grammatical forms and structures in the beginning course. Dhority's Level 2 intensive course in German makes increasing use of language-learning (as well as language-acquisition) strategies.

In Dhority's view (as in Lozanov's), homework and the language laboratory are associated with exercises and drill. To avoid the negative aspects of mechanical and boring work at home, ACT homework activities include the following: listening to tapes of the second (or baroque) musical concert readings as well as the readings of other texts; the writing (or transcribing) of short sentences or paragraphs from tape listening (this activity fosters a visual connection to auditory comprehension); filling in the missing words in exercises of the Cloze type (in the early stages of the course, grammatical manipulations are not required); reading over the texts studied in class just before going to sleep while listening to a tape of the second concert presentation of the material.<sup>9</sup>

Dhority points out in his book that conscious learning tools become increasingly appropriate later on in the beginning course as the skills of reading and writing receive greater attention. After 25–30 hours of concentrating on listening and oral skills, student motivation and interest is usually high enough to sustain a certain amount of conscious attention to grammar and syntax. Level 2 of the ACT program focuses increasingly on conscious, learned mastery, especially in the areas of reading and writing. However, to sustain student interest, care is taken at Level 2 to avoid suggesting that this is a traditional, drill-and-exercise-oriented course.

In the MLA exam in German, designed for students who have completed two semesters of college study, ACT students scored “excellently” in listening comprehension and speaking (and this in spite of the artificial contexts). On the discrete-point grammar section and in the writing section, quite understandably, they did not score nearly as well. Since 1985, Dhority has used the ACTFL Oral Proficiency Interview (or OPI) to evaluate ACT students after Level 1 and then again after Level 2. (The OPI, in his opinion, is at present “the best tool” for the evaluation of students’ abilities to speak a foreign language in a “closely approximated authentic communication context” [p. 132]). The majority of ACT Level 1 students achieve an ACTFL Speaking Proficiency Level of Intermediate-Mid. (Occasionally a student is ranked as Intermediate Low and occasionally one may achieve Intermediate High). Insofar as Level 2 is concerned, the majority of students in this course achieve the Intermediate High Level on the OPI. (About 15 per cent reach Intermediate-Mid and an occasional student reaches the Advanced Level).<sup>10</sup> Although Dhority admits to being uncomfortable with our society’s “test” mentality and believes that the success of his ACT language classes lies in “phenomena [he] will never be able to test empirically” (p. 173), he demonstrates in his book that it *is* possible for the ACT teacher, not only to be creative but also to test, produce data and prove methodological effectiveness.

## NOTES

1. For an account of early language research into Suggestopedia and the positive results, see: Schuster and Gritton, 1986, pp. 34 ff.
2. This trend persisted into the 1980s, as can be seen by the *Journal of the Society for Accelerative Learning and Teaching* (see, for example, Cooter,

1986) and the ERIC Documents on Foreign Language Teaching and Linguistics (see, for example, the work of Cullen, 1987, where Suggestopedia in its SALT and ACT variants is combined with Total Physical Response).

3. For a description of an early version of the LIND method, see: Schmid, 1978.
4. In Western Europe, in addition to excellent language teachers, such as Jean Cureau who, before his retirement, taught English at the Lycée Voltaire in Paris using his own unique adaptation of Suggestopedia (see, for example, his article, "Approches suggestopédiques en milieu scolaire" [1983]), there are a number of language professors and linguists who have created their own suggestopedically-inspired systems. In Germany, for example, Rupprecht Baur has transformed Suggestopedia into Psychopädie (1984); in the Netherlands, Wil Knibbeler has combined the Silent Way with Suggestopedia to create the Explorative-Creative Way (1989). In the former Soviet Union, Suggestopedia I (the Novakov version) has been combined with other elements and rebaptized "Intensive Teaching." (See, in this regard, Kitaigorodskaya, *Intensive language teaching in the U.S.S.R.* [1991]; and Baur, "La didactique des langues étrangères en URSS: fondements, recherches, tendances" [1985]).
5. Dhority, 1992, p. xv; p. 8. All succeeding references in this chapter to Dhority's *The ACT approach* will be indicated, in brackets, in the text, and without mention of the author and the date of publication.
6. In *The ACT approach*, chapter 12 is devoted to the ACT courses at the University of Massachusetts. Chapter 13, however, is devoted to an account of a successful experiment using the ACT Approach to teach German to American military personnel at Fort Devens, Massachusetts in 1982.
7. Dhority confirms in his book what other teachers have found, namely that trained musicians find background music distracting (p. 95). However, in his experience as well as in the experience of other instructors, suitable background music helps create a positive, pleasant environment and relaxed and cooperative students.
8. Supplementary materials in the form of a grammar text and readings are also part of an ACT course and they are introduced when and where appropriate to promote language learning (in the Krashen sense of the term).
9. An interesting parallel arises here with the work of Alfred Tomatis who emphasizes that a very effective technique for learning foreign languages is the combination of audio and visual elements. (See, for example, L. Tomatis, 1970, p. 32).

10. In the experimental ACT program conducted at Fort Devens, Massachusetts in the early 1980s for the United States army, more controlled evaluative measures were used than would be possible in a college or university language course. The results point to the superiority of the ACT pilot program over previous classes regarding the achievement of the language program's objective: achieving a level 1 or better on the Defense Language Institute Rating Scale. Most noteworthy is the fact that the pilot program's results were obtained in slightly less than one-third the time spent in the regular program (p. 168). See, also, in this regard, Palmer and Dhority, 1993.

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## CHAPTER 16

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# A Personal View

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On perusing recent issues of language journals, one cannot help but be struck by the fact that a growing number of articles are devoted to language skill loss and learner anxiety in the classroom. While most current communication-based methods attempt to deal with the problem of learner anxiety by creating a pleasant and relaxed atmosphere in the classroom as well as positive interaction between instructor and students, it would appear that not all deal as effectively as they might with the very real problem of language skill loss and/or fossilization of language use. In the opinion of this writer, the original version of Suggestopedia (largely elaborated by Aleko Novakov at the Institute of Suggestology in the late 1960s and early 1970s and still used in the former Soviet Union) contains many elements which promote not only relaxation and relief from stress but also concentration on, and memorization of correct language forms. (Without factual knowledge, it is really not possible to express oneself to any great extent in the foreign [or second] language).

As I observed the method in Bulgaria in the early 1970s (the version which I recorded at the time on audio cassettes and which was later, in 1974, videotaped at the Moscow Foreign Languages Pedagogical Institute named for Maurice Thorez by an American of Russian origin, Dimitri Devyatkin) and as I analyzed the sample language manuals obtained in Bulgaria and elsewhere in Eastern Europe, what impressed me were the various elements used to promote concentration and memorization. In the West, particularly in North America, we, as teachers, had access to the latest equipment and glossy manuals; however, our students were not always (or even often) in the proper

state for learning. Because of television and other factors (such as rock music, junk foods, lack of exercise, physical and psychological stress—not to mention drugs and alcohol), they had a very poor concentration span. (According to the late Marshall McLuhan of the University of Toronto to whom I spoke on a number of occasions in the 1970s about Suggestopedia, the average student concentration span was [or is], at best, the equivalent of the period between two television commercials). Even dynamic teachers trained in acting and other arts (and we had many of these) were not necessarily able to promote language learning, so poor or uneven was the concentration of our students. Although sparer and less artistic than its successor (the Gateva variant), the original version of Suggestopedia did contain a number of important memory-training elements, some of which came from yoga, some from traditional or innovative methods used in the West or the former Soviet Union, some from the inventive mind of Aleko Novakov, some from suggestions or insights furnished by Dr. Lozanov himself.

While it was possible to guess at the preparatory training in relaxation that the Bulgarian students received at the Institute of Suggestology in the late 1960s and early 1970s, it was not until the mid-1970s when I joined the Society of Accelerative Learning and Teaching that I found what seemed to me to be the “ideal” sequence of preparatory physical and mental relaxation exercises—in the SALT manual of classroom procedures based on the Lozanov Method, a manual co-authored by Donald Schuster, Charles Gritton and Ray Bordón. (This manual, as mentioned in Chapter 15, was the forerunner of the Schuster/Gritton *Suggestive-Accelerative Learning Techniques*). In the late 1970s, in Paris, during meetings of RYE (*Recherche sur le Yoga dans l'Education*), headed by Dr. Micheline Flak, I became aware of an important book by Jacques de Coulon detailing breathing and outer and inner concentration exercises (among others) and in 1979 in Barcelona I had the opportunity to attend a special seminar on Sophrology memory training given by Dr. Alfonso Caycedo. It seemed to me that elements of these various “systems” could be combined with elements of Suggestopedia for two purposes: (a) to teach students before the class begins how to learn and memorize more effectively; (b) to promote student concentration and memorization within the context of the language class itself. After examination and analysis, I subsequently divided accelerated learning techniques into three categories: (a) those which serve as a preliminary to learning (and which can be taught in a special training period before classes begin); (b) those which apply specifically to the learning of a foreign language and

which can be used in daily language classes by teacher and students; (c) those which apply to home study and which can be used by the students following the class. Needless to say (and as we shall see), there is some overlap insofar as elements of these three categories are concerned.

## LEARNING PRELIMINARIES

In a workshop format of several hours (or four days if graded exercises are used), I use the following sequence for stress-management and memory training outside of class or before classes begin: (a) physical and mental relaxation (or mind-calming) exercises and SALT “early pleasant learning recall”; (b) breathing exercises (including coordination of breathing with mental and physical activity); (c) outer and inner concentration (or visualization) exercises. (While exercises in [a] are largely taken from Schuster’s SALT, exercises in [b] and [c] are taken from Jacques de Coulon’s *Méthode Arc-en-ciel* [Coulon, 1977]).

Following the preliminary exercises, I concentrate on two memory-training systems: (a) the Sophrology memory training system and (b) the original (or Novakov) version of the suggestopedic session. The Sophrology memory-training system is designed to improve the memory in a global sense and is what one might call “inner-directed.” The original session in Suggestopedia is ideally suited for stress-free rote memorization of basic factual materials (for example, language vocabulary—indeed, its basics remind one of memorizing Latin vocabulary in two parallel columns in the “old days” of rote-learning) and is what one might call “teacher-directed.” The memory-training sessions of both Sophrology and Suggestopedia are, however, based on learning in two complementary states of consciousness: a wide-awake, alert level (outer concentration) and a deeper, more relaxed level (inner concentration or meditation). Whereas Suggestopedia (in its original version) uses a background of soft, soothing baroque music for the special session, Sophrology does not make use of music (although music can be added as a background, if desired).

### Physical and Mental Relaxation

Experts recommend that physical relaxation should precede mental relaxation which, in turn, should precede concentration exercises. (The

Chinese know this and, in the People's Republic of China, students are put through 20 minutes of special exercises every morning, before classes begin, and every three to four hours thereafter. Meanwhile, in North America, sports programs are either being phased out or else favor the super-athletic; the general level of fitness in our students is generally said to be very low). In the many "memory-training" sessions I have conducted over the years, I tend to "borrow" physical exercises from a number of sources (as well as from the SALT teacher's manual): commercial programs in stress—management (such as those offered by Eli Bay at the Relaxation Response in Toronto), Chinese books on fitness for the martial arts, yoga, Sophrology, RYE (the Paris-based Research into Yoga in Education). Sample physical exercises include: stretching exercises; jumping on a "hot" spot; distension breathing; shaking out the tension in the arms and legs. Exercises used depend on the space available in the room; the number of students and their proximity to one another; student level of physical and psychological tension; time available for this portion of the "training." Neck rolls and the progressive relaxation exercise (in which the key areas of the body from feet to head are relaxed in turn) are performed while the students are seated comfortably, but with a good posture (feet planted on the floor and hands resting lightly on their thighs) in their chairs. During the progressive relaxation exercise, which I direct, students are also asked to pay attention to their breathing—not in the sense of a precise count but in the sense of making it slow and deep.

Mind-calming exercises comprise "seeing" a little white cloud moving in the sky on a warm summer's day or climbing an imaginary mountain to watch a beautiful sunrise. (These exercises are taken from the SALT teacher's manual). A SALT exercise of "early pleasant learning recall" in which the students are encouraged to return to a past childhood situation where learning was pleasurable, not only induces a state of mental relaxation but also improves student motivation. I prefer to read the mind-calming and early pleasant learning recall exercises (as well as the progressive relaxation exercise) over a background of slow movements from baroque chamber music; what generally happens is that the students' breathing rhythm slows down naturally.<sup>1</sup> I have found the music tapes produced by Superlearning Inc. and LIND (Language in New Dimensions) to be very effective; another tape the students enjoy is the Pachelbel Canon in D Major performed on synthesizers and reset against the ebb and flow of the sea.

## Breathing Exercises

It is very important for students to be in a well-ventilated classroom, seated in an erect posture and breathing properly if concentration and learning are to occur. Books on yoga may be consulted for breathing techniques but the main points (as mentioned in Chapter 4) are: breathing through the nose; breathing slowly and deeply from the abdomen; and breathing in a rhythmic manner, by harmonizing the three “moments” of inhalation, retention of the inhaled air and exhalation. Sample breathing exercises include having the students (a) concentrate on their breathing for 30 seconds, visualizing the air inside them; (b) check their pulse beat and make their breathing rhythm coincide with their heart rate; (c) count the number of breaths they take within one minute. The next step is to coordinate breathing with mental and physical activity. Physical activities might include synchronizing breathing with four separate movements: get up, raise your arm, sit down, pick up a pencil; inhale while executing the first two movements; pause (and hold breath); exhale while performing the last two movements. Mental activities could comprise reading a text while counting the number of breaths one takes; coordinating breathing rhythm with pulse rate and at the same time reading a paragraph from a book; copying down several lines from a book or article while breathing slowly and deeply. (All of these activities can be found in Jacques de Coulon’s book, *Eveil et harmonie de la personnalité*; Coulon presents exercises which can be taught over a period of time and which become increasingly difficult to execute).

Another useful set of preliminary exercises involves the harmonization of breathing with outward concentration. For example, on a wavy line marked as follows:



Figure 16.1.



Figure 16.2.

students may be asked to breathe in from left to right and then to breathe out from right to left, while their gaze moves slowly from point to point along the line. The teacher may design on the blackboard (or white board) two figures linked by a vertical line of about one meter in length:

The students are asked to exhale, look at the lower drawing and inhale slowly while moving their gaze up the line, point by point. When the upper design is reached, the students look at it, hold their breath and

then commence a slow exhalation while moving their glance back down the line, point by point, until the lower design has been reached. After a several seconds' pause, the exercise begins again. (Students can move their heads or their eyes alone during this exercise).

### Outer and Inner Concentration Exercises

Concentration exercises begin with fixing one's outward attention on geometric shapes or patterns, reminiscent of the mandala. For example, in the following design:



Figure 16.3.

students are asked to concentrate on the small dot situated in the center of the figure at the right (30 seconds). Then they are asked to transfer their gaze to the dot at the left of the design. (If the students have concentrated properly on the

figures—and I have encountered students who are incapable of concentrating for 30 seconds—they should see, on the left, the same figure as on the right, except that the colors are reversed. (This exercise can be used “in black and white,” but it works better with a colored circle).

Another sample exercise taken from the Jacques de Coulon book involves both outer and inner concentration:

The students are asked to concentrate on the black circle and then to try to project a cross onto the inside of it, cutting through the dot. Then the students are asked to close their eyes and to visualize the same geometric shape—a circle with a dot inside it and a cross projected on the circle—and to fix their inner attention on this design.



Figure 16.4.

An exercise which involves inner and outer concentration, on the one hand, and a “life-affirming” or motivating factor, on the other (at least for students of French), is the following:



Figure 16.5.

The students are given the following directions: Concentrate your outward attention on the word VIE (= LIFE) for one minute. Now close your eyes and relax your eyelids. Imagine a white screen on which the word VIE is printed in black. Let the word disappear. With your eyes closed, recreate a white screen. Project the word VIE in black on this screen. Visualize clearly the separate letters. Keep this word in your mind's eye as long as possible.

A sample visualization (or inner concentration) exercise involves having the students choose two mental images, say, two different (and differently colored) objects or two different geometric shapes (a blue circle, a green square, for example). The students are asked to close their eyes, relax their eyelids and breathe slowly and deeply from the abdomen. As the students breathe in, they are asked to visualize clearly one of the two images. As they hold their breath, they visualize this inner image. While breathing out, they clearly visualize the second image, as if they were "changing slides." During a pause between breaths, they continue to visualize the second image. Next they breathe in and clearly visualize the first image once again, as the exercise is repeated.

In addition to exercises to develop visual concentration, exercises may also be given to develop auditory concentration. For example, the students are told to close their eyes and to concentrate on the objects the teacher mentions, visualizing each one in turn. Then the students open their eyes and are asked to recite, or write down the objects named and in the proper order. I tell the students that for efficient learning in an academic setting, it is very important to develop auditory, as well as visual concentration.

Once the students have performed the preliminary exercises of relaxation, breathing and concentration, they are ready to become acquainted with the Sophrology memory-training system and with the original session in Suggestopedia, two systems which, as previously mentioned, involve learning in two complementary states of consciousness: outer concentration on the text and inner visualization of the text.

### **Sophrology Memory-Training System**

Developed originally (as we have seen in Chapter 10) for personal or therapeutic situations, the Caycedo system for memory training can also be used for exam preparation as well as for memorization either of the main ideas (of an article or book chapter, for example) or the precise words of what one has just read (or is in the act of reading).

For exam preparation, students are trained in rhythmic, abdominal breathing, coordination of breathing with thought or image, proper cerebral circulation, correct posture(s) and visualizations of themselves performing well, and in a stress-free state, at exam time.

Insofar as studying printed materials is concerned, the students are first directed to look at the material (a language dialogue or a book chapter, for example) with intense concentration and in an upright seated posture. Then they are asked to close their eyes and, in an inclined seated posture, to visualize, according to the material being studied, either the main points or the precise words of what they have just read. (This visualization takes the form of projecting either the main points or the precise words onto an inner mental screen). Then the students are asked to open their eyes and to write down on paper what they have remembered. They may reread the material in question to see if it has been fully "registered." In contrast to Suggestopedia, no music is used in Sophrology and the students can move at their own pace. (For home use, I tell the students to focus themselves by listening to Mozart—instead of rock music—before studying and to continue training themselves in the Sophrology memory-enhancement system until they can move at a fairly rapid pace).

### **The Original Suggestopedic Session**

In the "preliminaries" section or category, the suggestopedic session is utilized for training in the memorization of basic factual materials (for example, foreign language vocabulary). Students are trained to memorize sample vocabulary lists which are presented to them on sheets of paper or on overhead transparencies; the foreign language (or part to be memorized) is on the left side of the page (or transparency) while the native language equivalent (or cue) is on the right side. Students are told to read over the list of paired associates before the exercise commences.

The list of paired associates is then read twice by the teacher. During the first reading, the teacher presents each appropriate foreign-language word (or item to be memorized) with three different (yogic) intonations: declarative, whisper, loud command. (Each native-language equivalent, or cue, is read first—in a monotone). The material is read on an eight second cycle: two seconds—translation (or cue); four seconds—foreign language word (or item); two seconds—pause. (To maintain the rhythm I find it useful to tap my foot lightly on the floor). During the "active" session, the students are told to concentrate their outward attention on the text and to repeat to themselves (using inner

speech) the appropriate foreign-language words (or items) as the teacher reads them.

During the “passive” session, the teacher reads the same paired associates a second time but now in a soft, soothing and persuasive voice over a background of slow movements from baroque chamber music. (According to experts on yoga, the “ideal” voice can be achieved by breathing slowly and rhythmically and by putting oneself, through autosuggestion, into a state of relaxation). Ideally the movements should be in 2/4 or 4/4 time and with a metronome speed of 60 to the minute (or one beat per second) so that the 2/4/2 rhythm of cue, item-to-be memorized and pause can be coordinated with the music. (For demonstration purposes, I frequently use the Superlearning music tapes, already referred to in the physical and mental relaxation section). The students have already been trained to breathe to a musical beat during the progressive relaxation exercise; however, they are told not to pay attention to their breathing rhythm during the “concert session” as their breathing will naturally slow down in response to the baroque slow movements. With eyes closed, and in a relaxed seated posture, they listen to the music and visualize (or concentrate inwardly on) the material to be learned.

## **ACCELERATED LEARNING TECHNIQUES FOR USE IN CLASS**

In the classroom, the language instructor has access to a wide range of “memory-training” strategies: repetition and drill, choral chanting, role-playing, story-telling, singing, games, relevant and emotionally appealing language materials. As has been shown by Lozanov, Rosenthal, Schuster and Dhority, among others, the teacher himself (or herself) has an effect on learning—hopefully, a positive one. So, too, does the environment, as Lozanov has demonstrated in Suggestopedia and Dhority in the ACT Approach. So-called “right brain” activities such as music and visualization exercises, as well as physical activities of a type used in Total Physical Response, can be used to improve language learning and retention. Multi-sensory inputs (auditory, visual, motor), considered so important for improved memorization by those with a knowledge of brain functioning, can (and should) be integrated into the language classroom.

As was mentioned in Chapter 2, some very effective memory-training elements which can be used in the classroom relate to

yoga: outer/inner concentration; the three intonations of the original suggestopedic active session; the Savasana pose (during the concert session); deep, rhythmic breathing; visualization of the pleasant scene described in the language dialogue; a slow-moving musical beat of 60 to the minute (the ideal meditation rhythm in Indian music); an "ideal" 20-minute session; coordination of breathing with concentration and music rhythm; mind/body harmony; a state of relaxed alertness to promote unconscious assimilation of materials. I have found that it is possible to use some, but not all of these elements that were originally a part of Suggestopedia, in the "conventional" language classroom. (It is very difficult, for example, to have 20-minute presentation sessions in an hour-long class and suitable chairs are not always available for the correct execution of the alternate Savasana posture of rest and relaxation).

It is generally possible, however, to utilize a "mini-session," if not necessarily in every 50-minute class, then at least every second or third class.<sup>2</sup> When reading the lesson text (a short dialogue or narrative passage in a beginning course), I read it in a dramatic way, i.e., using as many voice levels as possible. (No precise rhythmic pattern is followed). I do not read the dialogue over classical or romantic music as in Suggestopedia 2 because my students find such music too distracting; moreover, except in an intensive-course format, the first concert of the second version of Suggestopedia is far too long. Nor do I read entire sentences or phrases using the three intonations of the original active session as my students find this procedure too artificial. However, when reading the dialogue or narrative passage, I pause and repeat new and/or difficult words and expressions with three intonations or voice levels. During the first reading of the lesson material, students are asked to watch their texts attentively and to use inner speech or silent repetition throughout. (The first presentation [as well as the second] may also be used for presenting grammar items—provided these are reworked into a "poetic" or "narrative" framework as has been done by my former colleague, Dr. Christine Besnard, who is now at Glendon College in Toronto. In addition, the first reading may be coordinated with a slide presentation [or videotape] of the scenes or situations involved; in this case, the students watch the screen [or the subtitles on the screen] while using inner speech).<sup>3</sup>

For the passive session, the teacher reads the lesson-text a second time, in a soft and soothing voice over a background of one or more baroque slow movements. (The number of slow movements used depends on the length of the dialogue or narrative passage). In

addition to using the Superlearning music tapes, I have had my own tapes made by the technicians at the Scarborough Campus of the University of Toronto; the precise length of each excerpt is marked on the cassette so that I can select the appropriate movement for a given dialogue.<sup>4</sup> During this second reading, I use no special rhythmic pattern; the reading constitutes a kind of recitative over the music, with pauses of two to four seconds between word groups or sentences and a coordination of these pauses with the end of a musical phrase. Before the second reading begins, students are asked to close their eyes, breathe deeply and slowly from the abdomen, sit in a relaxed posture and listen to the music. While the material is being presented, they may visualize the "scene" inwardly. To bring the students out of their deeply relaxed state, I use a short, allegro movement from baroque music or I gradually count them "back to the surface," ask them to open their eyes and execute gentle stretching movements.

### **HOME STUDY USING "ACCELERATED LEARNING"**

For home use, in addition to a relaxation tape, students should have access to tapes of baroque and classical music (Mozart, for example) which are ideal for focusing attention and relaxing the mind. It is a good idea if they also have access to tapes of the vocabulary items for each lesson, recorded over a background of baroque slow movements by a native speaker in the original suggestopedic rhythm of 2/4/2 (i.e., two seconds English translation, four seconds foreign-language word group, two seconds pause). As in the Dhority ACT Approach, students should be encouraged to read over the texts studied in class just before going to sleep while listening to a tape of the presentation of the material over baroque slow movements. (A very effective technique for learning foreign languages [as Tomatis and others have shown] is the combination of audio and visual elements).

In my opinion, in an era when students suffer more than in the past from fatigue and tension and when, because of television and other factors, their concentration is in such need of improvement, the subject of Suggestopedia is more timely than ever. The yogic memory-training elements of the original suggestopedic session should be incorporated, wherever possible, into the language class along with such other elements of communicative-based or language-acquisition approaches as TPR strategies, role-playing, singing and games. Students should also be encouraged to use memory training strategies at home. As has

been mentioned earlier in this book (and particularly in Chapters 14 and 15), studies consistently show that Suggestopedia and its adaptations alleviate stress and improve motivation, focusing, memorization and language acquisition.

## NOTES

1. Dhority (1992, p. 66) has also found that, during the reading or presentation of guided fantasies, the "students' breathing will tend to synchronize to the rhythmical delivery."
2. See my article, "Suggestopedia, Sophrology and the traditional foreign language class" (1982a), which describes the use of these techniques to teach beginning French at the Scarborough Campus of the University of Toronto in the late 1970s and early 1980s.
3. See Besnard's article, "Techniques de concentration et de mémorisation dans la classe de langue seconde" (1985). For vocabulary related to nature, weather and the seasons (vocabulary that is presented in a conventional textbook), Besnard uses a specially written scenario, coordinates the oral presentation with a "slide show" and uses, as background, music composed by André Gagnon – *Mes quatre saisons*, for example. As a number of us have found in Canada, it is not always necessary to write one's own dialogues; suggestopedic or accelerated learning techniques can be used with a conventional, even a traditional textbook as well as with supplementary materials written to accompany it. It is also possible to use slow-moving "modern" music for the concert presentation and to combine elements of the original "active" session in Suggestopedia with the music of the "passive" session. (See, in this regard, Gassner-Roberts' article, "Suggestopedic research in the GDR: A personal report" [1986]. In the former German Democratic Republic, the three intonations of the "active" session were combined with the baroque music of the "passive" session).
4. The original suggestopedic session, as devised by Aleko Novakov, used the same "ritualistic" music for each concert session. North American students generally find a repetition of the same music, day in and day out, extremely boring. The teacher, therefore, should use a variety of baroque slow movements for the "concert." In addition to using such pieces as the Largo from Handel's *Xerxes*, the Air and Andante from *The Water Music Suite* and the Air from Bach's Suite No. 3 in D Major, slow movements (usually marked *largo*, *larghetto*, *andante* and *adagio*) may be excerpted from the following: Bach Brandenburg Concerti No. 1, No. 5, No. 6; Bach Violin Concerto in E Major; Corelli Concerti Grossi Op. 6; Corelli Trio Sonatas Op. 4; Handel Concerti Grossi Op. 6, No. 7, No. 9, No. 12;

Telemann Concerto in G Major for Viola and Strings; Telemann Concerto in F Major for Three Violins and Strings; Vivaldi's *The Trial of Harmony and Invention*, Op. 8; Vivaldi Violin Concerti for Two Violins and Orchestra in D Minor, C Minor, G Minor and D Major; Vivaldi Concerto in D Major for Guitar and Strings.



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# SUGGESTOPEDIA AND LANGUAGE ACQUISITION VARIATIONS ON A THEME

W. Jane Bancroft

*Attention all teachers using modern teaching and learning methods! Jane Bancroft has written the definitive who, what, where, when, why, whence, whereto and wherefore of the world's most effective direct teaching and learning method, Lozanov's Suggestopedia, in a piece of super-scholarship, including newly accessible sources from eastern Europe. Bancroft's expert exposition traces the roots of Lozanov's ideas and laboratory research through a dazzling maze of contributors and implementations, from historical pioneer connections to contemporary practice. She has created a road map for recognizing the worldwide variety of current applications of Suggestopedic-based pedagogy, which also connect to common themes in emergent human technologies of learning in many cultures. Suggestopedia and Language Acquisition, a richly documented and exemplary piece of scholarship by an eminent Suggestopedic pioneer, takes us far beyond foreign language teaching to practical and exciting implications for master teachers in all subject areas.*

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In an era when students suffer more than in the past from fatigue and tension, and when, because of television and other factors, their concentration is in need of improvement, the subject of Suggestopedia is more timely than ever. Studies consistently show that Suggestopedia and its adaptations alleviate stress and improve focusing and memorization. Methods for unconscious assimilation—and, in particular, Suggestopedia, its variants, its adaptations and its background elements—are the subject of this book.

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**W. Jane Bancroft** is an associate professor of French and Humanities at the University of Toronto. She has published more than 70 articles on French literature, music, education, foreign-language teaching and accelerated learning. Dr. Bancroft has participated in 29 international conferences on accelerated and/or language learning, frequently gives lectures and workshops on Superlearning and has appeared on numerous radio and television programs.

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