

# ***The use of sensory deprivation in foreign language teaching***

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*This article gives a detailed account of a methodology of language teaching which, though as yet not fully developed, has already aroused a lot of interest. The authors take the reader through the various stages of the method, and end with suggestions for those who wish to try it out informally in classroom settings before investing in the expensive hardware.*

The term 'sensory deprivation' is probably familiar to most of us from recent reports of interrogation procedures, but it may seem strange to find the expression used in a discussion of language teaching, especially since, at first sight, it is difficult to imagine how *deprivation* of sensory input could contribute to learning. However, recent experiments in this field (carried out principally by the Chilton Research Association at Didcot, near Oxford) have suggested that sensory deprivation (SD) could well become a powerful pedagogic tool in the not too distant future. The purpose of this article is simply to provide a résumé of current research in SD; readers who would like more complete information are referred to the very detailed account by Groboshenko and Rubashov (1980).

**Background** Interest in the use of SD in language teaching arose initially as a natural extension of the work of such researchers as Gattegno, Rand Morton, Lozanov, and Watanabe. Gattegno's refusal (in the 'Silent Way') to allow learners more than minimum access to the second language (L2) model; Rand Morton's insistence on eliminating meaning entirely from the early 'phonetic programming' stages of language learning; Lozanov's concern to purge the student of his former identity and to build a new, autonomous L2 personality through 'Suggestopaedia'; and finally Watanabe's controversial but impressive use of 'hostile environment' as a conditioning factor—all these elements are clearly recognizable in current SD practice. But SD goes a great deal further.

**The experiment** Perhaps the simplest way to understand SD is to look at what happens in a 'lesson' (more correctly, 'conditioning module'). Recent work by the Chilton Research Association has focused on the validation and comparison of a variety of module types; the best results to date have been obtained from a five-stage sequence.

**Stage 1: Disorientation** Students, or 'subjects', are placed in a bare room cooled to a temperature of 5°C. They are told to sit in rows facing the front, with a round-shouldered posture, and to refrain from talking. (For the effect of body-posture on learning readiness, see the paper by Kaama, Zing, and Vidmi (1979).) During this time, they are treated with coldness or outright

hostility by the training staff, or 'deprivers', as they are generally known. The hostility has several purposes: in particular the facilitation of disorientation and the discouragement of positive child-parent affective attitudes towards the deprivers. After subjects have settled down, they are left to sit in silence for a considerable time. Any attempt to talk or move around is suppressed.

- Stage 2: Exposure** When the appropriate moment is judged to have arrived, the subjects are exposed to a tape-recording of great length in the L2. No clues are provided as to the meaning, but from time to time slides are briefly flashed on to a screen. These slides have no relation to the text.
- Stage 3: Sensory deprivation** Subjects are then taken to their individual SD chambers. These are sound-proof and lightproof cells, each containing a bath in which the water is kept at a constant temperature of 37°C—blood heat. Subjects are undressed and immersed in the baths, which are designed so as to force subjects to adopt a foetal position. Once the SD chambers are closed, subjects suffer almost total deprivation of sensory input.
- Stage 4: Creative hallucination** This is the point at which SD becomes interesting from a language-teaching point of view, and indeed makes necessary a radical reassessment of conventional models of language acquisition. After a certain period (between three and five hours in most cases), subjects begin to hallucinate. Although the nature and content of hallucinations vary enormously, it has been established by Brindle, Halloran and their colleagues (1980) that sensory input experienced *in the last half hour before the onset of SD* is invariably incorporated, in particularly vivid form, into SD-induced hallucinations. To put this in simple terms, the subject's hallucination will contain *material* from the tape-recording which he heard in stage 2, and he will attach *meaning* to this material.
- Stage 5: Babel; negotiation; resocialization** Now begins the process of resocialization, using the student's newly-acquired L2 material as the vehicle. Subjects are removed from their SD chambers, dried off and dressed. They are then allowed to meet each other, but are instructed to communicate only in the L2. (The use of the mother-tongue is severely discouraged.) At first, of course, no effective communication is possible, because each subject has attached his own private hallucination-generated meanings ('H-meanings') to the L2 elements that he has internalized. (Suppose, for example, that one subject uses a particular expression—say, 'Commission agricole'—as a greeting. His interlocutor is certain to have attached a completely different H-meaning to it—he could for instance regard it as a threat and run away in terror.) However, as the encounter proceeds, common meanings begin to be negotiated. Just as a child learns to realize that it is of little value to go on saying 'Bligh' if other people express the same idea by saying 'Biscuit', so SD subjects, under the pressure of their need to communicate, begin to modify their H-idiolects in the direction of an H-sociolect. This process continues until students are able to communicate effectively within the limitations of their restricted sample of the L2. They are then free to rest until the following day, when the cycle begins again at Stage 1.

According to data so far available, an acceptable level of L2 performance is achieved with the majority of subjects in a matter of weeks. It is,

however, evident that there are a number of problems still to be solved. For one thing, there is a worryingly high drop-out rate, and follow-up studies have revealed the existence of disquieting symptoms among some unsuccessful subjects. More seriously, no way has yet been found of bridging the gap between the L2 sociolect established by the group and the way in which the L2 is used by the community at large. In other words, although SD subjects learn to communicate among themselves in the L2 with great efficiency, they are totally unable to make sense of the utterances of native speakers, and no-one else can understand a word they say. However, research currently going on in the field of intensive hostility conditioning offers some promise of a breakthrough in this area.

So much for the experimental scene. What are the implications for our classroom teaching? Obviously few establishments will be prepared, at this stage, to invest in a full SD lab. However, quite good results can be obtained in an ordinary classroom by using surprisingly simple techniques. Here is a suggested procedure:

1 Go into the classroom, sit down and remain totally silent. Refuse to give any information about the language (or indeed to say anything at all) until the students have worked themselves up into a frenzy.

2 Tell the students, in a cold patronizing tone of voice, that they are extremely fortunate in having been selected to take part in a language-teaching experiment. Give them brief (and preferably misleading) information about the nature and purpose of SD conditioning.

3 Issue blindfolds and ask students to curl up on the floor in a foetal position. Play the tape which you have prepared. (The topic is unimportant, provided the text cannot be understood by the students.) When the tape has finished, issue the class with earplugs. Wait until hallucinations are well under way, and then proceed as above. □

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#### **References and further reading**

Brindle, Halloran, Wells, Farrago, and Donnerkassen. 1980. *Einige noch nicht ausgewertete Ergebnisse einer ersten Versuchsreihe mit psychisch behinderten Kaninchen*. Sprachwissenschaftliche Mitteilungen des Otto von Guericke-Instituts, Iserlohn. Vol. 6 No. 1, February 1980.

Chilton Research Association for Psychological and Pedagogical Orientation (CRAPPO). 1979. *The effects of sensory deprivation on the mating call of the male song thrush* (see especially Appendix B). Didcot Academic Press.

Groboshenko, Z. and K. Rubashov. 1980. 'La déprivation sensorielle, les fantasmes et l'apprentissage des langues'. *Helsinki Journal of Behavioural Linguistics* Vol. 3/2, July 1980.

Hotchkiss, Gale. 1965. *Fluctuations in the market price of iron ore 1956-58*. New York: O.U.P.

Juul Kaama, Walt Zing, Matilda Vidmi and collaborators. 1979. *Concave body posture and learning rate parameters: some tentative correlations*. Chicago South Side Institute of Anthropometrics Occasional Paper No. 2.

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