

INVOLUNTARY REHEARSAL OF SECOND LANGUAGES IN BEGINNING AND ADVANCED PERFORMERS

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Barber (1980) described a "Din in the Head", an involuntary rehearsal of second language words and phrases, that occurs along with exposure to a second language in natural situations (for a full description, see Appendix). Krashen (1983) hypothesized that this involuntary rehearsal was the result of the Language Acquisition Device at work. It is caused, he hypothesized, by comprehensible input, messages in the second language that the acquirer understands¹. If this suggestion is correct, it predicts that the "Din in the Head" is a widespread phenomenon, and that it will mainly occur in those second language performers who are still in the process of acquiring, but will be less prevalent in highly competent second language users. In this short report, we present two studies that test these predictions.

IS THE DIN WIDESPREAD?

Barber's observations are limited to herself, while Krashen supplemented his own case with two other self-reports, both professional scholars in language education. Bedford (1985) administered a questionnaire to 160 university level foreign language students and found that 68.1% of his subjects reported having experienced "spontaneous playback" at least "sometimes"². The purpose of our first study was to gather additional evidence concerning the extent of involuntary rehearsal. We collected data from 504 subjects. Our informants included 192 high school students of Spanish at Crescenta Valley High School in the Glendale Unified School District in California (first to fourth year), and 312 undergraduate Spanish students at the university of Southern California (first to third semester). Each student was given a copy of Prof. Barber's description of the "Din in the Head", as it appeared in her 1980 paper (see Appendix). We then presented the subjects with a questionnaire, asking this question with regard to their experiences in Spanish:

Have you experienced the "Din in the Head"?
(yes, no, not sure)

The results were clear:

Informants	Experienced the Din?		
	<i>yes</i>	<i>no</i>	<i>not sure</i>
High School	78.1% (150)	9.4% (18)	12.5% (24)
University	69.2% (216)	8% (25)	22.8% (71)

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As indicated in the table, most subjects said they experienced involuntary rehearsal in Spanish. Responses differed significantly from chance (chi square = 309.35, $P < 0.001$; combining "no" and "not sure" responses, chi square = 81.8, $P < 0.001$, Yates correction for continuity applied). Our results are very close to Bedford's and confirm that the Din is widespread.

Consistent with Bedford's results, we found no significant sex differences and no significant differences among levels of proficiency, but the difference between high school and college students was significant (chi square = 8.19, $P < 0.05$).

DO ADVANCED PERFORMERS EXPERIENCE THE DIN?

If the Din represents the Language Acquisition Device (LAD) in action, it should occur more frequently among those who are still acquiring the language. The results of our first study confirm this—most students in elementary and intermediate language classes report the Din. Our second study investigated the occurrence of the Din in advanced performers. Subjects in this study were advanced graduate students and faculty in foreign language education who had acquired their second language as adults. All subjects were currently teaching the second language on the high school or college level. While we did not administer a proficiency test, it is clear that these subjects can be considered advanced performers in their second language. The procedure was similar to that described above; subjects were asked whether they now experienced involuntary rehearsal in their second language, as described by Barber. In this study, however, subjects were interviewed individually by the first author. This procedure differed from that used in the first study, in which a written questionnaire was used, but there is no reason to suspect that this influenced the results.

Our prediction was that little Din activity would be reported for these more advanced performers. Our results are as follows:

Experienced the Din?		
yes	no	not sure
3 (10%)	25 (90%)	0

Most advanced performers did not experience involuntary rehearsal in their second language. The difference between the advanced performers (teachers) and the less proficient acquirers (beginning and intermediate students) was highly significant (chi square = 155.27, $P < 0.001^3$).

DISCUSSION

Involuntary rehearsal of second languages was reported by about $\frac{1}{4}$ of the elementary and intermediate foreign language students in our study, but was much less prevalent in advanced performers. This result confirms that this phenomenon is pervasive, and is consistent with the hypothesis that it is related to language acquisition.

Bedford's (1985) results are also consistent with the hypothesis that involuntary rehearsal or spontaneous playback is related to language acquisition. Bedford found that involuntary

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rehearsal was reported more frequently after aural comprehensible input (conversations in class, classroom drills, and "after listening to Spanish [French, German] I understand") and less frequently after grammar study. He also found no relationship between the incidence of involuntary rehearsal and variables such as age and language aptitude, and a very low correlation ($r = 0.22$) between incidence of involuntary rehearsal and grades in the language course. Bedford reported little spontaneous rehearsal after reading in the second language. This result, while consistent with Barber's (1980) speculations (see Appendix), deserves further study, since there is good evidence that reading does contribute to language acquisition (see e.g. Krashen, 1985).

NOTES

¹ More precisely, the comprehensible input must contain at least some " $i+1$ ", structures "a bit beyond" the acquirer's current competence.

² Specifically, 20% of his subjects ($N=32$) reported that they never experienced the Din, 11.9% (19) said they rarely experienced it, 50.6% (81) reported that they experienced it sometimes, 11.9% (19) responded that they experienced it often, and 5.6% (9) said they experienced the Din very frequently (see his Table 1, p. 284).

³ Since expected frequency was less than five in one cell, a 2×2 chi square was computed, collapsing "no" and "not sure" categories. Again, the difference was highly significant (chi square = 55.40, $p < 0.001$, Yates correction for continuity applied).

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APPENDIX

Barber's Description of the "Din" (from Barber, 1980, pp. 29-30)

"I spent last fall traveling in a dozen countries, mostly in Eastern Europe. Since I was working rather than touring, I had to communicate in any language I could. I had studied Russian 10 years ago and had read it some since, but I had never spoken it much; I had learned Modern Greek by traveling one summer in the backwoods of Greece, with some help from my classical Greek, but I had never read it and had not used it at all in the intervening 17 years. French, which I had learned in a French schoolyard at age 12 and had studied in high school, and German, which I had studied one summer by correspondence, were more immediately serviceable: I had read and spoken both from time to time.

It turned out that the curators I was working with at the Hermitage in Leningrad spoke nothing but Russian. The first day I was tongue-tied, but by the third, I was getting along well enough. That is, we were managing to get the information back and forth to enjoy one another's acquaintance, even though I was acutely aware that I was making grammatical errors everywhere. But it was either that or hopelessly stall the conversation and the work. Any self-respecting adjective in Russian gives you on the order of 40 possible categories of forms to choose from, according to case, number, gender, and animacy, not to mention long and short forms and declension classes. If you have to dive into this labyrinth to select a form consciously, you find when you surface proudly with your hard-won morpheme that the conversation is 10 miles down the road. Either that, or your interlocutor is sound asleep. Social pacing turns out to be more important than grammatical correctness, even in a scientific conversation.

By the third day also, the linguist in me was noticing a rising Din of Russian in my head: words sounds, intonations, phrases, all swimming about in the voices of the people I talked with. This Din blocked out all my other languages to a degree inversely proportional to how well I knew them. Many times on the trip, after a few days of a given language, my social signals always came out in that language, regardless of what I was trying to talk at the moment—except English, of course and interestingly, French. I had learned my basic French as a child, by child's methods, and I have always retained the ability to switch in and out of it cleanly at a moment's notice. And whereas German was difficult to switch to, Spanish, my most recent language, was hopeless . . .

The sounds in my head became so intense after 5 days that I found myself chewing on them, like so much linguistic cud, to the rhythm of my own footsteps as I walked the streets and museums. Whenever I noticed this Din, the linguist in me would demand to know what I was saying. Half the time I had to look what I was saying up, or somehow reconstruct what it meant from the context in which I had heard it hours or days earlier. The constant rehearsal of these phrases of course was making it easier and easier to speak things quickly; things popped out as prefabricated chunks. But I had no control over what my subconscious fed into my "chewer" each day. It fed me what it considered to be memorable—not what I considered maximally useful. Nonetheless, my overall command of Russian improved more in a single week than it would have in a month or two of intensive reading.