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# The Din in the Head, Input, and the Language Acquisition Device

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**ABSTRACT** *This paper discusses a phenomenon familiar to many language acquirers, an involuntary rehearsal of second language words, sounds, and phrases. Current second language acquisition theory as well as case history reports of the "din" are consistent with the hypothesis that the din in the head is a result of stimulation of the language acquisition device, and is "set off" when the acquirer receives significant amounts of comprehensible input. The din may have practical value; it may tell us when we are providing input for real language acquisition in our classes.*

Professor Elizabeth Barber of Occidental College has recently described a phenomenon in her personal second language acquisition experience that is extremely interesting. It is an experience many of us have had in attempting to acquire a second language in natural circumstances and sometimes in formal circumstances. I will suggest here that this experience, the "Din in the Head," may be of importance both theoretically and practically. It may be a result of the operation of the language acquisition device (LAD) itself, and may be utilized for some very practical ends. It may be able to tell us, for example, how long language lessons should be, and when they are effective.

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The early sections of this paper describe the Din in the Head. I repeat here Professor Barber's insightful and lucid description of her experience, then add one of my own. The next section briefly reviews some recent work in second language acquisition theory that is relevant to the final section, some hypotheses about the Din phenomenon and some suggestions as to its utility in language teaching and acquisition. The hypotheses are based entirely on what can be termed anecdotal and self-reported data. They may, however, be testable using more rigid experimental procedures and are consistent both with the reports and with what is currently known about second language acquisition.

## Descriptions of the Din

We first turn to Professor Barber's description, taken from a paper on language acquisition and applied linguistics.<sup>1</sup> Professor Barber is both a linguist and an archeologist, and this excerpt describes her language acquisition and language use experiences on a recent trip to Europe:

"I spent last fall travelling 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 ten years ago and had read it some since, but I had never spoken it much; I had learned modern Greek by travelling 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 seventeen years. French, which I had

learned in a French schoolyard at age twelve 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 and 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 forty 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 ten 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 five 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 quickly and 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—usually from a surprising or stressful or isolated incident—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."<sup>2</sup>

I add now my own experiences, not because they are unique, but because they are not. In 1980

the Goethe Institute in New York kindly invited me to participate in a workshop/symposium on second language acquisition, along with several other North American and European scholars. The working languages of the symposium were English and German, the usual practice being that scholars would present their work and make their comments in their own language, assuming that all others would be able to understand.

I came to the conference with some linguistic hesitation. I had not used German to any extent since 1962, when I had spent 10 months in Vienna. On the first day of the symposium, all the presentations were in English with only part of the discussion in German. When German was used, it made me somewhat uncomfortable—I felt "German shy," not sure I would understand, and in the casual talk that evening, not at all eager to use German. The next day was different. A major presentation was made in German, lasting well over an hour. It was on a topic that not only interested me, but one that concerned me personally. My work was even cited several times! After a while I was so engrossed that I "forgot" that the presentation was being made in German. I followed it easily, thanks to a large extent to a very familiar extralinguistic context.

Professor Barber's Din began soon after. From New York, I flew directly to San Francisco to another Goethe Institute, where I conducted a weekend workshop on language teaching. On the plane, walking to the hotel, I felt the Din rattling in my brain, exactly as Barber described it. When I got to the workshop I was, for the first time in years, not only willing but eager to communicate in German, and I chatted in German with the participants during the breaks and at get-togethers in the evening. I noticed that I was confident and fairly fluent, but not perfect. I was not overly concerned about my errors and unashamedly asked for repetition and clarification when someone said something I did not understand.

The Din lasted only for a little while after the San Francisco weekend. After a few days back home in Los Angeles, with no contact with German, it began to wear off. Soon I was German-shy again.

These two anecdotes should give readers some idea of the Din phenomena, enough to relate it to their own experience. I present more such data after a brief review of some concepts in current second language acquisition theory that will be useful in stating hypotheses about the Din later on.

### Second Language Acquisition Theory<sup>3</sup>

Second language acquisition theory distinguishes subconscious language *acquisition* from second language *learning*. Acquisition is hypothesized to be subconscious in the sense that while it is happening we are not usually aware of it; our focus is elsewhere, on the message that is being communicated. The results of acquisition are also subconscious—we cannot always describe our acquired knowledge, but, rather, have a “feel” for correctness in a language we have acquired. Conscious learning is “knowing the rules,” or explicit knowledge. In everyday speech, it is “grammar.” In my view, research suggests that acquisition is far more important than learning. Acquisition is responsible for our fluency in second language, while learning serves only as a Monitor, or editor: we use our conscious knowledge of rules only to make corrections, either before or after we produce our sentence in the second language.

The theory hypothesizes that we acquire in only one way: by understanding messages in the second language that utilize structures we have not yet acquired. Put differently, if an acquirer proceeds along an order of acquisition of structures:

1    2    3    4    .....*i*

where *i* is his or her current stage of development, he or she can proceed to the next structure  $i + 1$  by understanding input that contains  $i + 1$ .<sup>4</sup>

We acquire, in other words, via *comprehensible input*, by listening or reading for meaning. We do not acquire by practicing speaking. Speaking is now thought to be a result of acquisition, not a cause. Real language production happens only after the acquirer has built up competence via input. (Speaking can help indirectly in that it encourages people to talk to you!)

I have hypothesized that the best input for acquisition need not be and should not be grammatically sequenced. When communication is successful, when the input is understood and supplied in quantity and variety,  $i + 1$  will be provided automatically and recycled in optimum quantity for language acquisition.

Comprehensible input is necessary but not sufficient. Even with comprehensible input, some acquirers fail to make progress. This is because, we have hypothesized, the input does not reach those portions of the brain that do language acquisition, even if it is understood. This happens when acquirers are overanxious or unmotivated, and results in the presence of an Affective Filter, a mental block that keeps the input out of the LAD.

A very interesting hypothesis is that we acquire best when the pressure is completely off, when anxiety is zero, when the acquirer's focus is entirely on communication; in short, when the interchange or input is so interesting that the acquirer “forgets” that it is in a second language.

We can summarize the above by saying that second language acquisition occurs when comprehensible input is delivered in a low anxiety situation, when real messages of real interest are transmitted and understood.

### The Din Hypothesis

I present now a central hypothesis concerning the Din phenomena, a hypothesis consistent with the reports as well as the theory described above:

*The Din is a result of stimulation of the Language Acquisition Device.*

This hypothesis has two corollaries: (1) The Din is set off by comprehensible input; and (2) This input needs to contain significant quantities of the acquirer's  $i + 1$ , structures which the acquirer has not yet acquired but is “ready” for. (Note that  $i + 1$  is probably a set of structures and not just one.)

This hypothesis is clearly consistent with Barber's report as well as my own. In both cases, there was considerable comprehensible input. In Barber's case the input came from interaction and in my case the Din was triggered by a good dose of pure input.

Corollary (2) predicts that the Din will not occur in very advanced performers, since they will receive less input containing  $i + 1$ , having acquired most of the target language. This prediction is satisfied in the two cases reported earlier as well as in the following report. Tracy Terrell, a professor of Spanish and Linguistics at the University of California at Irvine, is a very advanced performer in Spanish, but reports that he is only an intermediate in French. Professor Terrell was in Toronto last year and visited some French immersion classes. He reported that he sat in on about three hours of class one morning and subsequently experienced the Din. His hosts at the Ontario Institute for Studies in Education were quite surprised to hear Professor Terrell chatting easily in French with a department secretary upon his return from the immersion school. Terrell said that after the session, he was no longer French-shy, and like me in San Francisco, he desired some interaction in French. The case confirms corollary (2), since Terrell experienced the Din in an intermediate language; he reports that he never experiences the Din in Spanish (any more!). It also

confirms corollary (1), since the Din was set off by input only.

The Din hypothesis makes several other predictions, consistent with the case histories but requiring further cases: The Din will *not* occur after output practice without input. It will also not occur after pattern drills or grammar exercises.

It seems to be the case that the Din takes a certain amount of time to start up. The case histories suggest that it takes at least one to two hours of good input. Our usual procedure in language teaching is to give classes lasting an hour or less. Perhaps those teachers who prefer the two-hour class are also saying that it takes a two-hour dose of input to get the LAD moving.

The Din also seems to wear off after a few days. My experience studying French in a class in the summer of 1978 supports this, as well as the previous generalization. Our class met for two and a half hours, twice a week, and was conducted entirely in French. Each class produced a clear Din for me, and a desire to use French. Monday's Din was enough to last until Wednesday, and I usually started Wednesday's class eager for more French. The Wednesday Din, however, had generally worn off by Monday, despite my efforts to keep it going over the weekend by reading, and I generally came to Monday's class just a little French-shy.

This last case raises the question of whether aural input is more effective than written input for starting up the Din. It may be, but I have no ready hypothesis as to why, since written input should help language acquisition as well.<sup>5</sup>

Barber notes in her case that the Din made it difficult to switch into other languages. Could this be because the LAD prefers to work on one language at a time? Barber noted no problem in switching into her first language, English, and into her advanced French, only having problems with those languages in which she was less advanced.

A final conjecture concerns the craving for input and language use that both Professor Terrell and I experienced. We, of course, are professional linguists who came into linguistics partly because we enjoy language acquisition. Does the Din produce this craving among "civilians"? If so, we are led to the hypothesis that language acquisition is a natural and enjoyable process for anyone, as long as the right kind of input is provided!

#### The "Language in the Crib" Problem

The Din hypothesis may help to solve at least one theoretical issue. When Ruth Weir's book,

*Language in the Crib* appeared, her study was cited as supporting evidence for the audiolingual technique of pattern drill.<sup>6</sup> Weir tape recorded her 28-month-old son's evening monologues, and found that some of them did, in fact, resemble rehearsal of patterns (many did *not*, being coherent stretches of discourse). This phenomenon has been interpreted as *practice* and therefore as evidence that production, and a certain kind of production (pattern practice) is helpful or even necessary for language acquisition.<sup>7</sup>

My interpretation of the Language in the Crib phenomenon is different: it is simply the Din externalized. The child is much more likely to react this way to the Din, actually uttering the sounds he or she hears inside. James Cummins reports that his daughter, a student in a French immersion program in Toronto, often utters what appears to be random French when playing alone after school. Could this be the same thing?

#### Conclusion

The Din may have real practical value. If the above speculations are correct, and if we can get reliable reports from students on when the Din is "on" and when it is "off," it may help to tell us when our instruction is effective, how long lessons should be, their optimal frequency, what topics should be discussed, etc. In short, it may tell us when we are providing truly interesting and comprehensible input, and, thus, when we are causing real second language acquisition.

#### NOTES

1. E. Barber, "Language Acquisition and Applied Linguistics," *ADFL Bulletin*, 12(1980), pp. 26-32.
2. *Ibid.*, 29-30.
3. This is a brief sketch of the main points of my own work. For supporting evidence and more detail, see S. Krashen, *Second Language Acquisition and Second Language Learning* (London: Pergamon Press, 1981) and S. Krashen, *Principles and Practice in Second Language Acquisition* (New York: Pergamon Press, 1982.)
4. This is a vast oversimplification. See Krashen (1981, 1982) for more discussion.
5. Barber discusses the possibility that some people may experience a visual din. See her footnote six.
6. R. Weir, *Language in the Crib* (The Hague: Mouton, 1962).
7. I cannot cite any published source for this assertion. It has come up a good deal in conversation over the years, however.