

THE SONG STUCK IN MY HEAD PHENOMENON: A MELODIC DIN IN THE LAD?

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This hypothesis raising article deals with the relationship between four phenomena: (1) involuntary verbal rehearsal, also called the "Din in the head", (2) Piaget's egocentric speech, (3) Vygotsky's inner speech, and (4) the song-stuck-in-my-head (SSIMH) phenomena. The similarity of the Din to the SSIMH phenomenon is suggested based on a tentative pilot questionnaire, the database concerning the Din, a few insights from sources not yet considered in the Din literature (sports, neurology, and subvocalization studies), and parallel phenomena in visual and kinaesthetic rehearsal. It is hypothesized that song may act as a LAD activator, or be a strategy of the LAD in the ontogenetic development of language.

I. DIN BACKGROUND

The "Din in the head", or involuntary rehearsal of a foreign language in one's mind was first mentioned anecdotally by Barber in 1980: "By the third day . . . 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 . . . I found myself chewing on them like so much linguistic cud" (complete text in appendix). Identifying with her description, Krashen (1983) added further anecdotal information and hypothesized that:

The Din is a result of stimulation of the Language Acquisition Device . . . (the LAD) with two corollaries

(1): The Din is set off by comprehensible input.

(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 . . . Corollary (2) also 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. (Krashen, 1983: p. 43)

Krashen also predicted that "The Din will not occur after output practice without input. It will also not occur after pattern drills or grammar exercises." He also observed that apparently 'the Din takes a certain time to start up . . . at least one to two hours of good input' (p. 44).

Bedford (1985), Parr and Krashen (1986), and de Guerrero (1987) attempted to provide more evidence concerning the Din through questionnaires to groups of second language students and speakers. All three studies confirmed that the experience of the Din is

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Table 1. Results of three studies of Din experience

Study	Number	Responses	%
Bedford (1985)	160 (univ.)	"Sometimes" to "very frequently"	78.1
Parr and Krashen (1986)	150 (HS)	Yes	78.1
	216 (univ.)	Yes	69.2
Guerrero (1987)	55 (univ.)	"Sometimes" to "very frequently"	78.9
Totals	581	435 affirmative	74.9

widespread, with 74% of their combined total of 581 second language learners saying they had experienced the Din (Table 1).

Krashen and Parr also interviewed a small group ($n = 28$) of advanced second language speakers (hypothetically no longer as actively acquiring) and found that only 10% reported the Din, suggesting that the second part of corollary (2) was probably correct. However, de Guerrero's results suggested that the frequency of the Din rose slightly as proficiency in English increased.

Bedford's group was split between ESL and EFL learners and he expected that the Din would be more prevalent for the ESL group because they would be getting more comprehensible input [corollary (1)]. However he found no significant difference between the two groups. Both Bedford and de Guerrero asked what kind of input provoked the Din. Both groups reported more Din activity after conversational activities than after drills or grammar, suggesting that the Din is set off by comprehensible input. Both also concluded from their results that an hour class was long enough to activate the Din.

De Guerrero further tried to find out if students could voluntarily activate the Din. She found 55% said they could activate "mental rehearsal", to rehearse for future occasions or to playback conversations they had had recently in what I call the common *I-should-have-said-that* experience (ISHST). However, this may be very different from the Din as it may call into play the correcting Monitor (Krashen, 1982) which may create affective inhibition, thwarting natural acquisition.

2. RELATED LITERATURE AND IDEAS

2.1 Piaget's egocentric language

Krashen interprets infant "language in the crib" babbling, described by Weir (1962), as the Din externalized. Piaget (1923) was the first, to my knowledge, to actually describe a child's involuntary repetition when he described *langage égoцентриque* as opposed to *langage socialisé* and listed three categories: (1) echoic repetitions, in which the child seems to repeat for the pleasure of speaking without any concern for an addressee nor for words with meaning, (2) monologues, which may accompany or replace action, often simply called "thinking out loud" among adults, and (3) collective monologues, in which children seem to be speaking together but in reality they are only under the illusion that they are being understood while paying little attention to others. It could be that this egocentric language is in fact an external Din and a manifestation of the LAD at work. However, Piaget's description is of children as old as six and seven, considerably older than those for whom

the “language in the crib” is described. It could be that such involuntary rehearsal continues even beyond early childhood, although probably in different forms. We can often observe ourselves talking out loud, to no one in particular, while performing certain tasks, as if the words will make things happen even if our actions won’t (what Piaget calls the seemingly “magic quality of words” to act). Most evident are sportsmen on television who can be seen talking to themselves, telling themselves what they should do, or congratulating themselves. This is especially evident with some tennis players. During times of stress we all tend to “talk our way through” things we must do well.

2.2 *Vygotsky’s inner speech*

The Russian psychologist Vygotsky (1934), using Piaget’s research on egocentric language, analyses the situation differently. What he calls inner speech may have a strong connection with what is now being called the Din. While Piaget originally said that egocentric language disappears at school age, Vygotsky postulates that it goes underground and becomes inner speech, or verbal thought—words used for thinking. Apparently, young children conceive of language only in its vocalized form and use it principally in this way, only later realizing that they can think words without saying them. Egocentric speech’s “role of accompaniment to activity and its expressive and release functions, readily assumes a planning function, i.e. turns into thought proper quite naturally and easily” (p. 45). Inner speech “branches off from the child’s external speech simultaneously with the differentiation of the social and the egocentric functions of speech” (p. 51). The child learns to think with words “secretly”, not out loud.

Vygotsky says that in addition to losing its external vocalization, inner speech is highly semanticized and predicalized. When we think, it seems, we know the context of place, time, and roles and the predicates dominate. In conversation between two people, the context may also be well known and thus few things nominalized (named). In writing, we need to be more precise since what we write may be read at different times in different contexts. The way we contextually anchor the text will tell us what kind of discourse it is (Bronckart, 1985). Inner speech is thus at the opposite extreme of written formal text in the number of things that must actually be named and in the precision of meaning. Superficially inner speech seems to differ from the Din in that it appears to be voluntary and comprehensible. However, I think it will be found that much of it is actually involuntary and, if not incomprehensible, extremely vague.

2.3 *Visual and kinaesthetic rehearsal: (in)voluntary*

While the “Din” is auditory, there also exist visual and kinaesthetic rehearsals which are widely experienced affectively, but also usefully in many domains, one of which is sports.

Weir suggests in one of her footnotes that some people may experience a visual din. Artists have told me that when working intensely on a painting, they can’t get the image out of their heads, that it stays with them when they leave the studio and comes to them at strange moments. Traumatic experiences or horror movies may keep us from sleeping because we involuntarily continue to see them. (Could this be an innate survival mechanism, similar to the LAD, meant to prepare us for possible danger and repeating the dangerous images so we are familiar with them?). More agreeable may be the infatuation-inspired image of a lover.

Involuntary kinaesthetic rehearsal may be manifested in gestures, tics, nail biting, smoking, and perhaps tapping one's foot to music. Competitive gymnasts, divers, or trampolinists shortly before performing can be seen going over their routines in their minds and involuntarily making minute movements with different parts of their bodies which actually embody the whole movement they will soon be doing; this is also an example of physical synecdoche, a partial action representing and encapsulating the whole, comparable to a phrase of *Din* which hangs on after a conversation.

Naturally efficient athletes probably begin doing visual and kinaesthetic rehearsal early on, which may account for much of their success. The performance of others can be helped by their being shown how to rehearse with internal images and to feel their bodies going through the motions. "Visual rehearsal not only aids mental preparation but actually stimulates the muscles needed for the movement. The more real the mental image, the greater the benefit of such practice (Abraham, 1983)." Those familiar with neurolinguistic programming will recognize in this what is called "future pacing", which asserts that if someone can be shown how to "see" a possibility, then it becomes more possible to realize it.

Mental rehearsal may also have the positive results of incorporating abilities and the tools that go with them into our body-images. Neurologist Oliver Sachs (working with patients who have the opposite problem, the inability to feel that a part of them, a leg for example, actually is a part of them) writes that:

the 'other side' of body-image losses are all the incorporations into body-image of one's skis or one's scalpels—or, for that matter, the car or plane one pilots. Nothing feels 'natural', 'comes naturally' until it is incorporated. . . . In learning sports (or, for the matter, ballet-dancing, or pancake tossing) one has, I think, to start with a 'mimesis', no abstract description or explication can be incorporated as part of self. I suppose something of the sort is operative in language acquisition . . . (personal communication).¹

That we have visual and kinaesthetic rehearsal merely reinforces the idea that an auditory one is probably quite natural, i.e. it doesn't mean we are going crazy if we hear voices, see images, or produce movements seemingly from nowhere. The degree to which these rehearsals are voluntary or not, can be trained or not, warrants energetic research, as does the degree to which music plays a facilitation role in this associative encoding (as it would appear to do in gymnastic and dance routines).

2.4 *Subvocal rehearsal and prosody in silent reading*

This section addresses the role that subvocal rehearsal might play in initiating a *Din* and its connection with other skills.

Lyczak (1979) conducted an experiment in which he had Chinese-English bilinguals in Hong Kong, who knew no Thai nor Japanese, listen to tapes of either Japanese, Thai, or classical music for a week. Then after a short Thai learning period, he tested their comprehension and production of Thai. While he surprisingly found no difference in subsequent comprehension of Thai among the three groups (having hypothesized that recognition would precede production), there were significant differences in production, with the Thai-listening-group scoring highest. The Japanese-listening-group scored lowest, apparently being inhibited relative to the Music Group. He suggests that perhaps students were rehearsing

subvocally, as none were seen speaking during the experiment. Lyczak (1979: p. 87) concludes that:

The fact that the Japanese Group performed more poorly than the Music Group suggests that subjects in the Japanese Group actually learned something about the Japanese language which later interfered with the learning of Thai. . . . rehearsal is a primary mechanism for getting information into long term memory and making it available for later recall. Recognition is much less dependent on the rehearsal process. The effects of rehearsal, therefore, are much more likely to be exhibited on a recall task, such as language production, than on a recognition task such as translation. . . . Subvocal rehearsal, therefore, . . . may be a more potent factor in second language learning than language teachers had heretofore imagined. . . . (It may very well be that this is the way that) exposure to language does affect subsequent learning.

It could also very well be that the 45 minutes a day of subvocalization rehearsal for four days initiated a Din reaction, especially since students were told to concentrate and that they would be tested on day five. Unfortunately students were not questioned as to what they were mentally doing during these sessions. Although student self-reporting may be misleading, it could have provided some indication as to their strategies. Lyczak also cites Postovsky (1974) as attributing the success of his delayed oral practice technique in part to subject's subvocalization of vocabulary. "Ironically, the subjects who had rehearsed subvocally for four weeks in Postovsky's study scored better on tests of language production than those who had rehearsed vocally throughout the entire course."

Finally, Kadota (1987) cites many studies supporting the finding that "listening comprehension training forms the antecedent to the development of overall communicative competence and, above all, provides a positive transfer to reading comprehension skills." He contends that this is due to our subvocalization during silent reading which provides the isochrony of speech rhythm which in turn plays a role "in the higher-order cognitive mechanism of organizing words into phrase-like processing chunks." The Din could very well be the LAD working on the chunking and rhythm constraints in different languages, which must be processed before meaning can be efficiently handled.²

2.4.1. *Whose voice in the Din?* Asking students where a Din comes from, as done in several of the Din studies, is unrealistic in my opinion as it belongs to a group of inner psycholinguistic processes that are not easily monitored consciously without disrupting their operation. Similar to dreams, we might have to take the Din to the psychoanalyst's couch to really find out where it comes from. Furthermore, results of several of the Din studies were probably affected by Barber's description, which subjects usually read first, in which "voices" of people met is given as the principal source of the language in the Din (see appendix).

Nevertheless, several interesting responses to this question from subjects I have questioned, have pushed me to consider further possibilities. Several people, of course, mentioned that "being in the country" sparked the Din, implying that being immersed in a language activates the Din more. One mentioned advertisements from television and radio. Perhaps the advertizers have some secrets teachers could learn. Several mentioned "reading books, magazines, vocabulary work". If these last are involved as input for the Din, then they

are probably in the form of subvocalizations in the reader's own voice.³ This type of Din, in the person's own voice, would certainly help later when actual production is the goal, because, to a certain extent, each of us would have already said whatever we have read.

2.4.2. *Listening primacy.* Postovsky's and Kadota's studies (above) suggest that a listening period preceding reading and production is most efficient. According to this scenario, the LAD, sparked by listening and subvocalizations, activates a Din in order to chew on elements and schemas for acquisition which would lead eventually to comprehension, later contributing to reading and ultimately production. Reading done too soon as the main source of input, and hearing one's own voice subvocally, may partially account for the fact that many adults keep a strong non-native accent in a foreign language, while children, who are principally listeners not readers, seem to have little problem becoming native-like. Extensive reading by such adults too soon would provide great reinforcement for their non-native subvocalized production.

In other words, for older children and adults, it would appear that: (1) a lot of listening practice helps later in our production (Lyczak, 1979) as it allows us to imitate that which we hear; semantical meaning, and thus listening comprehension, is a dynamically built, ever-changing, structure that may come after our ability to imitate and continue to change and develop throughout life (Vygostky, 1934). In other words listening first enables us to imitate, but not necessarily to understand immediately. (2) However, forcing students to produce out loud in the beginning stages of learning may even inhibit later production (Postovsky). (3) Having had a lot of listening practice may help to develop the subvocalized prosody needed for efficient reading (Kadota, 1987). (4) Finally, reading subvocally may be like listening to yourself say words which may be input for the Din and inner speech which transforms input into potential output.

Many language learners are aware of the *Eureka!* phenomenon of having said things they didn't consciously know they knew how to say. Subvocalized reading in one's own voice and the Din might account for some of this unconscious language gain.

Thus, our LADs may be performing somewhat cyclical processes of involuntary rehearsal on our way to increasing use of language: we listen to develop prosody in order to be able to read and speak more efficiently, and then we can read to listen to ourselves subvocally "use" words which may be echoed in the Din and which are transformed into further potential output. If the involuntary Din can be consciously and intentionally controlled and stimulated, as we seem to be able to do with inner speech (see Zivin, 1979, self-regulation), we may ultimately be in control of more of our language acquisition than we have thought up to now.

3. SONG DIN?

Upon reading the articles concerned with the Din, I immediately saw a similarity with what I call the song-stuck-in-my-head (SSIMH) phenomenon. Having personally experienced songs Dinning through my head many times, usually with audition followed by relative quiet (as with the last song you hear when leaving your home, car, or a restaurant), I was

interested first of all in finding out if SSIMH was widespread. I gave a pilot questionnaire to 49 subjects, 30 native English speakers and 19 of other languages in Switzerland, all of whom reported they experienced the SSIMH in some language. Only two, who were occasional English learners, said they never experienced the SSIMH in English, which is not surprising since they were beginners in English. But, then again, it may be surprising since English songs dominate in their environment: pop stations play between 75 and 90% English songs in Switzerland (Murphey, 1984).

It would seem that the SSIMH experience is common to many people. Indeed, I have yet to meet someone who does not identify with the experience. To determine to what extent SSIMH is qualitatively different, if at all, from the Din, further research is needed.

It's clear however that song's power to "stick" is tremendous; this may partially be due to some similarities that it enjoys with inner speech. Research into the discourse of pop songs shows that they have an extremely high verb count with few concrete referents for participants, times, and place (Murphey, 1989a,b). Pop song discourse seems to be like an algebraic formula in which anyone can put in the elements of their choice and it will still equal (mean) something to them. Although many song lyrics may ultimately be found to have a similar discourse structure to that of inner speech, the music, in its incapacity to name, in its pure prediction (see Ruwet, 1972), is probably the hook upon which our minds are most caught. Finally, technologically, if not psycholinguistically, the Walkman has allowed music and song to resemble inner speech even more in that it can now be private and secret, unbroadcast to those around us unlike egocentric speech. Taking the analogy further we could say that egocentric speech is like a ghetto blaster; however at a certain age one learns that it can all be internal and egocentric speech becomes a Talkman, without the tell-tale headphones.

Several authors have also written concerning the philogenetic and ontogenetic primacy of musical language. Rousseau (1781/1968) and Jespersen (1925) both postulated that song preceded speaking. Livingstone (1973) gave anthropological evidence that *homo sapiens* sang (non-linguistic vocalizations) before speaking. Ontogenetically, infant vocalizations, language in the crib, resemble singing more than speech (Jusczyk, 1986; Konopczynski, 1988), mirroring the philogenetic development. Of course, adults also naturally adjust to infants and small children with many musical motherese features (intonational exaggeration, Ammenton, CVCVCV structure, see Snow and Ferguson, 1977) which also lends weight to the argument that musical features have great importance in language acquisition.

The SSIMH phenomena might be a developmental strategy of the LAD. Sachs writes, "(concerning) 'tricking' the LAD into operation via music and song, . . . one sees again and again how Parkinsonians tho' unable to walk, may be able to dance; and though unable to talk, may be able to sing" (personal communication). A major research question for L1 and L2 language acquisition is: can music and song trick the LAD into a Din mode?

Apart from its possible connection with the Din, there already are many indications to support song's positive contribution in language acquisition: the many musical features of motherese and of infant babbling, the therapeutic capacities of music and song in general and of melodic Intonation Therapy for aphasics (Sparks and Holland, 1976), the neuro-

psychological indication that the right hemisphere is responsible for the emotional aspect in language and musical processing for non-musicians (Buttlet-Sovilla, 1988), and the pedagogical attributes that many language teachers find in song (Murphey, 1989b).

4. CONNECTION BETWEEN THE DIN AND THE SSIMH

Looking again at Krashen's (1983) hypotheses concerning the Din, stated earlier, and comparing them with what I hypothesize about the SSIMH highlights more their differences than their similarities. First of all, Krashen hypothesized that the Din would be provoked by comprehensible input. I think it will be found that many people experience the SSIMH without understanding the content of what is Dinning, internally or externally. (Note however that Barber also said she had to look up words from her Din in the dictionary.) Granted it is usually the melody that first becomes stuck, but EFL students have often sung lines of a song to me asking what they mean. As a child, I learned songs in Spanish, French and German without knowing the meaning of the words I was singing, something many choirs do regularly and many summer campers do with "Kumbaya".

Thus, Krashen's first corollary for the Din, that it is set off by comprehensible input, does not necessarily appear to be the case with songs. However, here I may be in danger of interpreting comprehensible input too rigidly. While children are "under the illusion" that others do attend to their egocentric speech, many listeners are "under the illusion" that they understand the linguistic meaning of the songs they hear regularly because they do understand *how they interpret their use* in their environment, similar to the way children sing nursery rhymes while playing a game with no idea really what the words might be referring to (Opie and Opie, 1985). They do understand the game.

Corollary two, that the input should contain certain $i+1$ structures seems equally inapplicable for SSIMH since the linguistic content does not have to be understood in the first place. This corollary also predicted that the Din would not occur in very advanced performers. I would hypothesize that the SSIMH experience will be found to be equally strong, if not more so, with advanced performers.

Krashen also predicted that the Din would not occur after output practice without input. A song which is being subvocalized maybe seen both as input and output at the same time. Perhaps this is the crucial element which distinguishes *input* from *intake*: for input to become intake, a certain expenditure of internal energy must act on the input to produce a kind of "internal output" to reorganize and create cognitive structures. The expenditure may just be an identification process, a mirroring and appropriation of what one hears or sees. Without that internal output, or expenditure, input does not become intake. It stands to reason that there will be more intake with comprehensibly relevant input. The Din and the SSIMH can be seen as involuntary LAD processors that transform input into intake. They may be manifestations of on-line learning.

Finally, Krashen predicts that "the Din takes a certain time to start up. . . . at least from one to two hours." Amazingly enough, a song may only take a few minutes and Din the

whole day long in our minds, and come back to us at strange moments, sometimes to our annoyance.

Krashen's hypotheses may prove correct for the Din, but the SSIMH appears, by the observable evidence available, to be quite different. Nevertheless, it could just be that they are qualitatively different while both being manifestations of the LAD. The SSIMH may very well be working on the suprasegmentals, the chunking and intonation contours that are ontogenetically more accessible to beginners in a holistic natural order of acquisition, while the Din may work more with meaningfulness criteria. Their connection with Vygotsky's inner speech, one researched, may have exciting implications for pedagogy.

If the above hypotheses concerning the SSIMH are correct, it could be that the wide popularity of English language music (ELM) worldwide may be having a greater impact upon potential and actual language learners than teachers have thus far given it credit for. In Switzerland adolescents are in contact with between eight and twelve hours a week of ELM, double or triple the number of hours of English classes they have in school (Murphey, 1984). Such contact may just be making learning English in school easier if, as Lyczak concluded, prior exposure to language does affect subsequent learning, even when this exposure is not linguistically meaningful.⁴

SUMMARY

If involuntary rehearsal is the humming of the efficient LAD, music and song may initially play an associative facilitating role in engaging and stimulating it. It seems probable, from the discussion above, that certain types of involuntary mental activity such as involuntary auditory rehearsal and imaging (i.e. day dreaming and fantasizing), may be trained and directed, but in doing so we may run the risk of also engaging the conscious monitor and inhibiting at least part of the salutary naturalness.

The axiom "we are what we think" (i.e. what we rehearse mimetically and holistically) may be truer than we realize. Apparently, we tend to use mainly elements that our environment (books, people, television, etc.) provides for the content of our thoughts. Thus, to a certain extent, one could say we are recordings of everything that we come into contact with and everything we experience, as we tend to mirror, echo, or rehearse these things throughout our lives. But thank God we have the power of choosing at least some, if not a good portion, of our thoughts to think, and experiences to experience. Finally, it would seem that some things, like songs, have more staying power than others, and that some conscious processes may help, or hinder, our use of these powerful mental strategies. Studying the how and why of the Din and the SSIMH phenomena may allow us to use them more advantageously for things we want to stick in our minds.⁵

Acknowledgements—I would like to thank Anisa Caine, Tracy Mannon, and Heather Murray for comments made on a rough draft of this article.

NOTES

¹ For more information on such neurological case histories see, Oliver Sachs, *Awakenings* (Picador), *The Man Who Mistook His Wife for a Hat* (London: Pan Books, 1986), *Without a Leg to Stand On* (New York: Summit, 1984).

² I have often noticed that choir directors work with singers in the same order: first dealing with rhythm and chunking of parts before joining them together and only much later working on ways of giving passages special meaning, little matter if the language is known by the singers or not.

³ It is also possible that we imagine someone else's voice when we read. For example if we have heard the author in a media interview or the book is the autobiography of an actor that we know, their voice may well be the one in which the words are echoed in our minds. However, I imagine, that for most impersonal material it is our own voices, if any voice at all can be distinguished.

⁴ I stress "linguistically meaningful" because I do think that songs and music stimulate "meaning making" through associative encoding. Thus the referential specificity of a language will be lost to non-speakers and won't be able to contribute to the "meaning making". However, meaning is made, or ignored, nevertheless, through what the listener conceives of the music and vocalizations and the listener's personal context.

⁵ Some of the questions we might want to ask concerning the Din are: Do adults have Dins because they don't have egocentric language? Do children have Dins too? Could adults learn more easily if they exteriorized their Dins? Can song activate the Din?

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APPENDIX 1: BARBER'S DESCRIPTION OF THE DIN:

from BARBER, E. J. W. (1980) Language acquisition and applied linguistics. *ADFL Bulletin* 12, 26–32.

"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 10 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 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 actually 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 the 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 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."