

LISTENING IS GOOD BUSINESS

28 August 1964

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NOTICE

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Washington, D. C.

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COLONEL AUSTIN: General Schomburg, Scholars: Last Friday when Dr. Reichley, the Director of our Resident School, was briefing you, he told you that we have a general studies program that will run concurrently with the other courses throughout the year. The next hour and one-half is, of course, as you know, a part of that program.

Last year a renowned educator on this platform stated, "learning is a function of the learner." Over 300 years ago Galileo stated, "You cannot teach a man anything; you can only help him to find it within himself."

This morning the next hour and one-half, I think, exemplifies each statement. You will have before you in just a minute the world's foremost authority on a neglected function called listening. He will give you the latest body of research on the subject, including a formula evolving from the research for improved listening. However, whether you and I benefit from it depends on you. So, if you listen carefully for the next 50 minutes, you may listen better the rest of your life.

It is a pleasure to have you here, Dr. Nichols.

DR. NICHOLAS: Thank you, Colonel Austin, for that very pleasant introduction. Good morning, Gentlemen.

Away back in the year 1940 Dr. Harry Goldstein at Columbia University completed a very interesting piece of research. It was underwritten by one of our educational foundations. It was very carefully drawn and was designed to compare the relative efficiency of reading and listening, the two media through which we do the bulk of our listening. At the end of his study he made two observations of a good deal of interest.

1. That it was perfectly clear from his data that it is easily possible for the human animal to listen to human speech at a rate three times the pace we normally hear it, without any significant loss of comprehension of it whatsoever.

2. That it is a curious thing we have not taught our young people how to listen, side by side with teaching them how to read, from the first day the first public school-house opened its doors.

A few educators read the report, worried a little, but did nothing much about it. Shortly after that a very important figure in the television industry, Richard Hubbel, completed a year of research, published a new book, and in it declared without equivocation that 98 percent of all that a man learns in his lifetime he learns through his eyes or through his ears. Hubbel's book threw a spotlight upon a long-neglected organ you and I own, our ears, and it threw into focus one of the most important researches of our period, this one done by Paul Rankin at Ohio State University.

Rankin was determined to find out what proportion of our waking day we spend communicating with each other. He enlisted the help of 65 white-collar folk, much like you and me, with each individual promising to keep careful log on all his conscious, waking, daytime activities, at 15-minute intervals, for 2 months on end. Rankin collected all these data, tabulated them, stared at the results, could not believe his own eyes, but published them. Immediately they were republished in a score of professional journals.

Here is what he found: Seventy percent of our conscious, waking day is spent in communication. Seven out of every 10 minutes that you and I are conscious, alive, and awake, we are communicating. Rankin broke this down among its component parts, found that we spend 9 percent of that time in writing, 16 percent reading, 30 percent talking, 45 percent in listening.

Now educators in all the States were upset, for, quantitatively speaking, America has built her school system exactly upside down. If a youngster goes through college some poor pedagogue has spent a total of 16 years in all trying to teach him what a sentence is. Then sometimes we hand the young man a 4-year degree without knowing for certain that he really knows what a

sentence is. We pour countless tax dollars and teacher hours of energy into the refining of the least used channel of communication, writing.

Reading gets a pretty good investment. Standard practice in America is to have eight grades of reading training. For some reason that I have never understood, we chop it off at the end of the eighth year. Any further gains made are on an individual basis only. We average out as a nation with six and one-half grades of reading ability. But even 8 years calls for a lot of tax dollars.

Then you get into something more important, quantitatively speaking, speech itself. Thirty percent of our time is devoted to talking. If you will look into the curriculum of any high school in the State in which you live, you will hunt a long time trying to find one, single, required course in speech in that high school curriculum. If it is a good school, there will be an all-school play put on once or twice a year. If it is a topnotch school, there will be a debate team with a couple lawyers' sons on it. There may be an all-school orator or extemp speaker, and that is about the end of it. Speech training in America is a kind of extracurricular activity, a peripheral function, without much academic respectability attached to it. The truth is that most of the speech taught in America today is taught by Dale Carnegie and his cohorts in night classes at about \$125 a head for tuition cost. It comes too late in life and too expensively to do many of us much good.

Then you get to the most important of these four communicative processes, at least in a quantitative sense, listening, and 12 or 14 years ago you could hardly find a man who had ever heard of it. I guess I was one of those most upset by the data I have just been giving you. I asked my university for a sabbatic leave, spent 12 months trying to find out what a good listener looks and acts like anyhow. First off, I wanted to know what was known about it. I couldn't find a high school nor a grade school in America teaching it. I did find one little college teaching it, a girls' school down in Missouri, Stephens College by name. Perhaps they regarded it as a social grace to teach their coeds in Missouri how to listen.

To my astonishment, I discovered more than 3,000 scientific and experimental researches had been completed and published in the parallel learning medium of reading. Only one which you could dignify with those adjectives had been completed and published in the field of listening comprehension.

Now I ask you men to look at it with me. Sixteen percent of our communication time we read. Three thousand researches tell us how to read better. Forty-five percent of our communication time we listen, and 14 years ago there was but one really important research with the word "listening" in its title.

But a very dramatic decade has just passed. Today most of our notable universities are teaching listening under that label. More importantly, they are doing graduate-level research in the territory. We have ground out 125 Ph. D.'s in the past 10 years alone in the field of listening comprehension. Scores of industries have instituted their own listen-training programs. Three departments of the Federal Government have followed suit. And it is very gratifying to me to report that every branch of the military services, at least for selected officer personnel, now has some listening training for their people.

In view of this sudden surge of interest in effective listening, essentially developing in 10-years' time only, this morning I should like to raise just two questions with you gentlemen and very closely pursue answers to them.

Question No. 1: Is bad listening a problem? Well, it certainly is in school. The first man to throw light on it there was Professor Harry Jones of Columbia University. Several years ago, one fall, he was placed in charge of all the beginning sections in psychology for freshmen at Columbia. He had 486 youngsters enrolled in these sections. He made it his practice one day each week to bunch up this population of freshman, give them an important weekly lecture, and then immediately test their comprehension over what he had said. Every time he did this he got more and more depressed. It just did not seem to him that he was getting much of anything through to the brains of these freshmen.

But he hit upon a very novel idea for an experiment. He talked 50 of his colleagues on the faculty at Columbia into cooperating with him. Each professor represented a different subject-matter field. Each professor promised to come in and give a 10-minute cutting of his own, favorite lecture in his own subject-matter territory, to Jones's freshman population. Furthermore, each professor submitted this 10-minute excerpt to Jones ahead of time, who painstakingly built an objective test over its content.

Half the items in each test demanded a recalling of facts and the other half demanded an understanding of a principle or two imbedded in the lecture cutting.

Now, any teacher can make his students look stupid by making his test too hard, or make them look brilliant by making it too easy. Jones did neither one. He conscientiously wanted to find out what proportion of a 10-minute, informative talk can be assimilated and recalled by university freshmen.

The experiment proceeded. Professor No. 1 walked in and gave his 10-minute pitch. The group was tested and he disappeared. No. 2 followed. After several days had passed that group had heard 50 little lectures and had been tested 50 times.

Jones collected all the papers and scored them, and found that on the average these youngsters could answer but half the items in the quizzes. Then came the payoff. He let 2 months go by, then reassembled his 486 freshmen and gave them the whole battery of 50 tests the second time. This time they were able to answer correctly but 25 percent of the items in the quizzes. The old curve of forgetting had hit those freshmen as it hits you and me and everybody else who tries to learn something. They had lost just half of what they at first had known.

Jones was forced to conclude reluctantly that, without training in listening, university freshmen appeared to operate at a 25-percent level of efficiency when they listened to a 10-minute talk. I did not believe it could possibly be that bad. I decided to run the experiment over at the University of Minnesota, and did so. I followed exactly the format Jones had used, with only one deviation. I did not wait 2 months for the retesting but only 2 weeks. I was pretty certain it doesn't take 8 weeks to forget half what we learn.

I got the same report to make that he had made. My youngsters knew half the answers in the immediate listening situation and they knew a fourth of them after 2 weeks had gone by. I now believe I would have had the same report to make if I had tested at the end of 2 days instead of 2 weeks. That old forgetting curve always takes the same pattern. If we know this much immediately after learning it, there is always an early downward swoop and then a leveling off, and we tend to retain the residue until we become senile or die. That residue, in the case of listening, always

seems to be at the 25 percent efficiency level if you are listening to a 10-minute talk. Heaven knows what it will be for this one this morning. It is going to run some 50 minutes. Recall is bound to be at even less than 25 percent efficiency in this case.

How do you men like that? Most of you like to regard yourselves as efficient organisms. At the end of the day you like to sink into an easy chair somewhere and think, "Well, all in all, I think I was operating at around 90 or 95 percent efficiency on the job." One business man I know says, "I have to run my assembly line at 98 percent-efficiency or I'm broke. I can allow 2 percent for scrap in my shop, the profit margin is so narrow in my field." That same character, proud of 98 percent efficiency on his assembly line, doubtlessly operates at a 25 percent level of efficiency when he does that one thing in this world we do more frequently than any other single thing you can name, except to breathe.

Is bad listening a problem? It certainly is in church. A couple years ago I had a young Lutheran minister in my graduate seminar in listening, and he was much worried about whether he was being heard on Sunday mornings or not. Between us we worked out a little experiment trying to get an answer to his doubt. He built one sermon, 30 minutes long, in 2 equal parts. For 15 minutes he talked about "spare the rod and spoil the child," the title of an article that earlier had appeared in the "Saturday Evening Post." In his sermon he underlined the thesis of that writer. He said, "That is right. We never should have given up corporal punishment in the first place. We ought to beat these youngsters of ours. Whom the Lord loveth he chasteneth," he argued. For 15 minutes he went on in that vein, and then he swung around completely and went into a strictly theological type of contact, using such language as, "Get right with God. Repent your sins. Love your neighbor," and so on.

From the pulpit that Sunday morning he made the announcement that, being a young man, he would very much like to improve himself in his profession. "Thus," he said, "I am going to ask the ushers, as you leave the sanctuary this morning, to hand you a questionnaire." Actually it was an examination. He said, "Please take these questionnaires home with you, fill out the blanks, and mail them back to me before next Sunday morning." Well, apparently his people wanted to make a better preacher out of him. Seventy percent of them filled out the examination blanks and mailed them in to him.

He scored these exams with great care and discovered to his astonishment that his people could answer just over half the items that dealt with the "spare the rod and spoil the child" theme, but they could answer fewer than 20 percent of the items that dealt with the theological type of content. Makes you wonder, doesn't it, why we go to church in the first place?

Is bad listening a problem? It certainly is in court. The other day I got a letter from a New England lawyer raising a peculiar question. He said he had just completed a case in Boston, a civil case, at the end of which the judge spent 6 hours instructing the jury on the law that they were to use in rendering their decision. He wrote, "My question to you, professor, is this: What proportion of that 6-hour discourse will the jurors understand and use?" I had to write back in honesty that probably the answer was zero, that it could not be over 5 percent of such a long tirade. Suddenly the question hit me: What kind of justice do we get out of the American court?

We could find out. All we would have to do would be to make transcriptions of a dozen judges' instructions to a dozen juries, build a long set of objective test questions over the content, administer the whole routine to a university population somewhere, and come up with an answer. I think the result of such a study would be the most inflammable article ever published in a national magazine.

Is bad listening a problem? It certainly is in business and in industrial management. You men certainly ought to be interested in this, for many of you are in management or will be. The Savage-Lewis Corporation of Minneapolis is an advertising and communications firm. Several years ago they were determined to discover the communicative efficiency of representative industrial management. They made a very careful study of 100 representative industries. I want to report their data to you.

In order to understand these figures, you will have to recognize that typically in these 100 industries there were five levels of management above the worker pool at the bottom. Up at the top always there is some kind of board of directors. Right below that there is the vice-presidential level. Then there is the general supervisory level; the plant-manager level; the foreman level; and then the manual workers are at the bottom, sometimes unionized, sometimes not.

Early in their study they found that one director talks very well with another director. Sometimes these fellows achieve 90 percent efficiency in transmitting meaning from one brain to the other. One foreman talks all right with another foreman. Sometimes these fellows achieve 90 percent efficiency in transmitting meaning from one brain to the other. Horizontal or lateral communication with our own peers seems to be no great problem to us in our organizations. But you start vertical communication downward and you get an entirely different picture. Let the chairman of the board call in the vice president and tell him something and on the average only 67 percent of the message gets through to the brain of the VP.

Now, if that is a valid statistic--and I have no reason to doubt its validity--it would be a lot of fun to look inside a vice president when the chairman of his board is talking to him. That VP must be a seething mass of urine, thyroxine, adrenaline, shaking knees, quavering fears, tensions of all kind. Let the vice president give the same message to the supervisor and 56 percent gets to him. Let him give it to a plant manager and 40 percent arrives. Let him give it to a foreman and 30 percent gets home. Let him give it to the squad of workers who are his responsibility, and on the average, in 100 industries today in America, only 20 percent of any message could come down through five levels of authority and get to its ultimate receiver.

Some of you must be wondering: How can they stay in business? How can any outfit operate with 20 percent efficiency in communication? Well, the horrible truth is it cannot. The horrible truth is that most of us are headed for bankruptcy. I don't know whether this worries you men or not. It worries me. My salary depends on the prosperity, in a sense, of the business community. But the terrifying truth is this: Every year in America 4 percent of our businesses go bankrupt. Every new business has only 40 percent chance to survive the first year. Every 25 years 90 percent of our businesses go bankrupt.

Now, I cannot prove to you men this morning that 9 out of 10 of us are headed for bankruptcy because we cannot communicate. But I would like to argue very urgently with this audience that one very significant cause of bankruptcy is bad management. And what is management?

Lawrence Appley, the president of the American Management Association defined it neatly a few years ago. He said, "Management is simply the business of getting other people to do the things that must be done." If that is management, communication must be the very heart and soul of managing any enterprise. How on earth can we get other people to do the things that must be done if we cannot communicate with them?

If the data I have just given you are a little frightening, I would like to worry you further. What kind of efficiency do you think we have from the bottom up to the top in these industrial managements? You can hunt a long time in many a business and not find one, single open channel of communication from the bottom up to the board of directors. Now, fortunately, that is not universally true. General Motors, General Electric, the Telephone Companies, and most of our forward-looking companies in America to day have become much exercised about upward communication. They are now recognizing, apparently, that they can make more money, and they can be more efficient in their production, if they can keep track of what the people down at the bottom are thinking about what their worries, problems, fears, and ideas are. They have tried out technique after technique to establish some kind of a system of upward communication.

I have not time to delineate all these for you. I would just like to name them. The oldest system for upward communication is to shake hands with all the boys on the payroll Monday morning and ask each fellow about the wife, the old Buick he drives, and the kid at Notre Dame, and you can kind of get a finger on his pulse, so to speak. This works swell if you have only four men on your payroll. If you have more than that it gets too cumbersome to use.

Industry had to lay it aside, by and large, and they adopted a second technique for upward communication, and that is to have an open meeting of management and labor with each man instructed that, if he has a gripe, to stand up and speak his piece in public. It seemed like a great idea. It fell flat on its face. The thing wrong with it is that no man likes to air his primary grievance in front of his immediate supervisor. He is worried about getting too emotional over it. If he talks at all he will talk about his secondary complaint or his tertiary one, but he is not about to get overemotional in front of his boss.

We laid it aside. We tried the elected representatives of management and labor. Then we got a little more fanciful. Somebody said, "Why not put a box over by the door with a slit in the top of the box and hang a scratch-pad there. If anybody has a gripe let him write it on a piece of paper and drop it into the box." It seemed like a tremendous idea for upward communication.

A friend of mine at a large electric appliance firm told me that he was going through the slips in one of their boxes one day, when he came across an interesting one. It said, "For three straight years I have told you that my foreman is a son-of-a-bitch. You have not done a thing about it, and this is the last time I am going to tell you about it." This, I think, reveals what is wrong with the complaint-box system. Management simply doesn't know what to do with all the crackpot complaints they get. If they don't do something about them, they are worse off than if they had no box.

Then along came somebody with a great idea. He said, "We have the wrong label on the box. We ought to put on there 'Suggestion Box.' Let us get some constructive ideas. In fact, let us pay for them. If a man puts a workable idea in the box, let us give him \$10 for it, or even \$15, \$20, or \$25." It seemed like a tremendous idea. And it fell pretty flat on its face. Almost every industry adopting this cash-incentive plan for constructive ideas wish they had never dreamed it up in the first place. Somehow it all gets built right into the next union contract, and they seem to be losing money and not gaining money with it.

Then along came some college professor, I think. He said, "You people in industry are doing some very peculiar things. You want to find out what the people down at the bottom are thinking about. Why don't you ask them? I could build you an opinion survey and let you know in 2 weeks what all your people are thinking." "Very good," said management. "Let us have one of those." They paid out a nice retainer to this professor. Two weeks later he came in and gave them all the figures. He said, "Here is what your people are thinking about." It seemed like a tremendous idea, and it fell flat on its face. The thing wrong with it is that a man's ideas can change in 24 hours. Let the president of a company come and announce that the next few days look awful rocky for the company and the opinion of all the workers shifts.

The college professor was about to be laid off. He did not want to be, because he was being paid a nice retainer. So he came up with a counter plan. He said, "Just a minute. Everybody knows that feelings and emotions are much less flexible and pliable than opinions. I could make you an attitude inventory and tell you what the attitudes are among your workers." "O.K.," said management. We have lost \$5,000; why not lose another \$5,000. Go ahead and build us one of those attitude inventories, if you want to." The professor did, and 2 weeks later he came up with a report of the attitudes of all their employees. It seemed like a tremendous step ahead. It fell flat on its face, too. The thing wrong with it is that a man's attitude, too, can change as soon as the adrenalin drains out of his vascular system, and this didn't work. We would have to have one of these opinion or attitude surveys about every 2 weeks if we really wanted to know what the hourly worker was thinking about.

Savage and Lewis have said we ought to have a communication center, that we ought to set up a separate department for communication. Other companies came up with other ideas. The fascinating thing about this is that when you face an American with a problem he immediately starts to build a machine. The machine is supposed to take care of the problem.

I think we have missed the boat. If we don't regard this matter of listening as a human, personal responsibility, hour after hour, day after day on the job. Of all the studies I could report to you, the one I like best was done, I think, by Loyola University, 3 years ago. They wanted the answer to one question only. That question was: What is the most important, single attribute of an effective manager? For 18 months they pursued that query. Then they came up with their reply in one short statement, so frightfully important, in my conviction, that I would like to give it to you word for word. Here is what they said: "Of all the sources of information a manager has by which he can come to know and accurately size up the personalities of the people in his department, listening to the individual employee is the most important. The most stereotyped report we have received from thousands of workers who testified they liked their supervisors was this one: 'I like my boss. He listens to me. I can talk to him.'"

So much for my first question: Is bad listening a problem? I would like to quickly turn to my second, which I think will be of greater interest to you: Is there anything we can do about it? After all, if you and I are condemned to a lifetime of 25 percent efficiency every time we try to learn something through our ears, the future has a pretty dismal outlook to it.

Fortunately, it is not necessary. If you and I want to become good listeners, and if we want our own children, or our own employees, or our associates to become good listeners, this can be accomplished.

One year, several years ago, I screened out at Minnesota the 100 worst-listening freshmen I could identify and the 100 best. We had an incoming population that fall of about 7,000. When you pick out the 100 worst and the 100 best you have two widely contrasted groups of performers. I then subjected these poor, suffering, 200 freshmen to about 20 different kinds of tests and measures. I measured their reading, writing, speaking, and listening, their intelligence, mechanical aptitudes, math aptitudes, science aptitudes. I put them through six different kinds of personality inventories and had each one fill out a long questionnaire and undergo a long interview with me.

At the end of 9 months of what I thought was pretty careful study of the differences between the good and the bad, it seemed to me clear that 10 factors had emerged, separating one group from the other. At the end of the year I published an article in Collier's Magazine, titled, "You Don't Know How to Listen." Collier's immediately went defunct.

Fortunately, I thought, some people at Michigan State University read the article, repeated this research at East Lansing, and reported the same 10 bad listening habits in Michigan that I had been bemoaning in Minnesota. Three men out in Colorado repeated the study and reported 9 of the same 10 in that State.

So, for what they are worth, I should now merely like to enumerate for you what I think are the 10 worst listening habits of the American people. I do this because, if we would become good listeners, we must rid ourselves of any of these faults that may be afflicting us and replace them with their counterpart skills.

Bad-listening habit No. 1 is calling the subject uninteresting. Many times the bad listener will do it as soon as the chairman announces the topic. He says: "Wah, communication. I have been around and around on that stupid topic 40 times. Everywhere you go somebody talks about communication. Why can't we get something new and interesting on the program once. Guess I will worry about that old secretary of mine. Am I going to sack that old woman or keep her another 12 months before I fire her?" Off he goes on mental tangent No. 1 because the subject is so dull.

The good listener starts at the same point and gets to a different conclusion. When the chairman announces the topic, he says, "Wah, communication, that old chestnut. We have been over and over and over it. Why can't we get something new. Just a minute. I am kind of trapped in here. It would be a little embarrassing to me to get up and walk out right in the middle of it. Inasmuch as I am trapped anyhow, I might as well tune this old professor in and see if he has anything to say that I can use."

The key to good listening in the first instance is that little three-letter word, use. The good listener is a sifter, a screener, a winnower of the wheat from the chaff. He is a man always trying to find something practical or worthwhile to store away in the back part of his head and put to work for his own, selfish benefit in the months to come.

We acknowledge the selfish character of it. We say to our freshman trainees, "Whenever you hear a sustained speech, be just as selfish as you can be. Hunt for the practical or the worthwhile to use. Store these things up and cash them in the years ahead." G. K. Chesterton put the whole thing in a nutshell some 50 years ago when he said, "In all this world there is no such thing as an uninteresting subject. There are only uninterested people."

Bad-listening habit No. 2 is criticizing the speaker's delivery. This gets to be an indoor pastime on the part of most bad listeners. No sooner does the man start to talk than the bad listener says, "Look at that fellow, would you? Did anybody ever tell him to keep his hands out of his pockets when he is giving a speech? And that necktie! Why doesn't his wife tell him? And his voice! Barking, snorting! Nobody could hear anything and get it from such a terrible purveyor of it." Off he goes on a mental tangent.

Again the good listener starts at the same point but gets to a different conclusion. When the man starts to talk he says, "Gee, this guy is inept. I don't think I have ever seen as awkward, faceless, a character before an audience in my life. You would think with the peas we shell out around here we would get someone better, now, wouldn't you? But just a minute. This character, horrible as he is, is teaching a course in organic chemistry, with five credits required for graduation in my curriculum. I looked him up in the college catalog. He is the only man on the faculty who even teaches the course. I have to dig the chemistry out of this bird that he knows, that I don't know, if it kills me. I will pick his brains if it takes every erg of energy inside me to do it, bearing down on the chemistry, instead of the delivery technique of the poor, old pedagogue."

An amazing thing happens. Not many moments go by before all the delivery faults of the poor speaker become oblivious to the fellow who is trying to get the message. Let me illustrate the point. Suppose through that double door right now would burst a janitor, screaming at us in broken, profane, vulgar English, "Get the hell out of here! The building is on fire!" We would not lean back in our respective seats and say calmly to him, "Please, sir, will you not couch that admonition in better rhetoric before we follow you?" We would be very glad to rush pell-mell out of here, as you well know.

This is my point. The message is always four times as important as the clothing in which it comes dressed. Sometimes I think it is 10 times as important as the delivery skill of the purveyor of the message. As soon as we recognize that simple truth we are all on the way to becoming better listeners, because we begin to assume half the obligation for completing each communication.

Bad listening habit No. 3 is getting overstimulated. I feel like an authority on this one, for I have been overstimulated about something or other as long as I can remember back across the years of my life. I think my adrenal glands are hyperactive. At any rate, whenever I am in an audience a speaker seldom talks more than a minute or two before I want to challenge him on something. I cannot keep my hands down. If it is too formal to interrupt him right on the spot, I will sit there gnashing my mental teeth and try to compose the dirtiest, meanest, most embarrassing

question I can contrive. Oh, you can ask terrible questions of speakers, using the old technique of "Have you stopped beating your mother yet?" Whether he says yes or no, you have him impaled, and usually you can catch him completely off balance with this trick question, if it doesn't fit. Sometimes I will know a bit of evidence that contradicts something that he has just reported, and I will sit there mentally building myself a great rebuttal speech to give as soon as he sits down. Too many times in my life at the end of a good talk, I have leaped to my feet, hurled my embarrassing question at the speaker, or made my great rebuttal effort, only to find him looking at me in complete astonishment and saying, "Well, Nichols, didn't you hear what I went on to say when I explained that so-and-so was also true?" I had not. When I get overstimulated, my listening efficiency drops to a zero per cent level, and that is where it is most of the time.

This is a terrible habit, so bad that in big, bold letters across the top of the blackboards back home, where we train freshmen how to listen better, we like to print the words of this maxim: "Withhold evaluation until comprehension is complete." And if we are afraid they cannot read that, we put up, "Hear the man out before you judge him." Most of us are snap-judgment makers, and we just cannot wait to fully understand the proposition before we decide to accept or reject it.

Bad listening habit No. 4 is listening only for facts. This is a curious business. I asked the 100 worst listeners what they concentrated on when they listened. One hundred out of one hundred bad ones said, "We listen for the facts." Well, the truth was, they got a few, garbled a shocking number, and completely lost the bulk of them. I then asked the 100 best listeners what they concentrated on when they listened. Very timidly, 97 out of the 100 good ones said, "Well, we try to get the main ideas out of it." I asked, "What do you mean by that?" "Well, usually, when a man is giving a speech," they replied, "he is developing some kind of a generalization, a principle, or a concept. We try to understand these central ideas as best we can." We pursue this facet of good listening with meticulous care, as you may well imagine. We had not chased it far before we became completely convinced that the good listener is always the idea listener. He does pretty well understand the central ideas, and he uses these to give sense and system to the whole discourse. And, after as few as 48 hours have gone by, he has more facts appended to his connecting threads than the spongers and catalogers of facts only are able to retain

for even 2 days' time. Even if it is facts we want, the best way to get them is to get first the principle that limits and controls them. Then we have a chance to retain and make use of those facts in the years ahead.

Bad listening habit No. 5 is trying to make an outline out of everything we hear. This, too, I think is a very curious business. I asked the 100 worst listeners what they did for note-taking. One hundred out of one hundred said immediately, "We made an outline, of course." They thought note-taking and outlining were synonymous. There is nothing wrong, I think, with outlining a speech, if the speaker is following an outlined pattern of organization himself. I will even concede that I think he should be, but between this morning and the day they put you and me into our respective caskets for all eternity, I would estimate that no more than half the talks we hear are going to be given by speakers carefully following an outline pattern of organization. If they are not, one of the most frustrating things in our culture is to try to outline the unoutlinable. I have watched students do this many times. Always they become deeply engrossed in symmetry. They get the borders around the four sides beautifully spaced and content is nicely centered. Sometimes I think they sight down the lefthand margin to get all the indentations exactly in line. After each of their outline symbols, they painfully inscribe a few words of meaningless jargon.

Two months later, reviewing this truck, trying to get ready for the final exam, they spend about 90 percent of their review period trying to figure out, "What in thunder was I thinking about when I wrote that in my notebook? Oh, this is a futile business."

I asked the 100 best listeners what they did for note-taking, and they said, "Oh, it all depends on the speaker, of course." I asked, "What do you mean by that?" "Oh, we do not take any notes," they replied, "for a couple minutes, until we see what we are in for, and then, if the man is organized, we will outline him. Most of them are not. We have never heard a lecture in chemistry, physics, or biology that we could outline. These scientists do not even think that way."

And they started talking about other ways of taking notes. They described the annotation system, the tracing system, the abstract system, the facts-versus-principles system. That last one fascinated me. It takes two sheets of paper instead of one.

On the top line of one sheet you write the word, "facts." On the top line of the opposite sheet, you write the word, "principles." Then you kind of lean back in your chair and you say to yourself, "produce, mister, if you can." You wait for the speaker to turn up one or the other. If he produces one of these articles, you simply make a vertical listing of it in column form on the appropriate page.

I decided to give this system a tryout. I went in to hear a speech. I had two blank sheets of notebook paper, and I came out with two blank sheets of notebook paper. Really, there is great beauty in that. You save a lot of energy that way, and, furthermore, you expose a phony. You never go back to hear the character a second time. He did not have anything to say.

I decided to give the system another try. I went in to hear an expert in the psychology of learning, a professor named T. R. McConnell. He had not talked two minutes until I realized that this fellow was a machine, or maybe there was an elf down in his abdomen turning the handle of a corn-sheller. Out of the horn of that sheller, his mouth, there flowed a constant stream of facts and ideas. When he got done that day I had 40 facts on my fact page important to me, and 2 or 3 principles on the other sheet well worth thinking about. I went back to hear him again and again, and I never heard that man give a speech that I did not come up with 20 to 40 new facts, important things, and 2 or 3 principles well worth reflection.

This was an adventure in learning, an exciting kind of experience I had never had earlier. Now, there are other beauties in this way of taking notes. If you have to take a test over the contents you have the perfect ingredients for review before that final exam. All you have to do to get an A grade, usually, is to read rapidly through your accumulated fact sheets as fast as you can go, without trying to memorize them, and put them face down; pick up the principle sheets, spend 5 minutes brooding about the applications of each principle that you have collected during the semester, and put them down. Then you read through the fact sheets as fast as you can go, and put them down. Spend 4 hours on this alternating routine and you are ready. The professor cannot beat you.

The man who grinds out this kind of grist is also an expert test-builder. To your pleasure, you are going to discover that he has one objective test item on practically every fact he has covered during the semester, and you will recognize them well enough to get them right. He is going to have between 5 and 10 questions on every principle that he has covered during the semester, too, and you will get the bulk of those right.

There is still another beauty in this way of taking notes. It doesn't seem to make a whole lot of difference whether the speaker is well organized or confused. If he has any facts or principles in his discourse, you can screen them out with this technique of note-taking.

Now, of course, the principle at stake here is broader than I am making it seem. It is this: The good listener is a flexible, adaptable kind of note-taker who adjusts his note-taking system to the organizational plan the speaker is following, or the complete absence of any such plan at all.

Bad listening habit No. 6 is faking attention to the speaker. In many years of teaching school, if I would look out across the audience and see the bulk of my students staring back at me from this pose (demonstrating) I was always inclined to make a mental note to myself and say, "Look at this professor. They all have you tuned in this morning." We now know that one of the surest indexes to inattention in our whole culture is this posture on the part of the listener. Having paid the speaker the overt courtesy of appearing to tune him in, this one now feels conscience-free to take off on any one of a thousand mental tangents, and that is probably where he is gone. If you ever face a group yourself and see the bulk of the people staring back at you from this pose (demonstrating) for Heaven's sake, stop short in your discourse and tell everybody to stand up and do some calisthenics with you to get the blood circulating again.

Good listening is not relaxed and passive at all. It is characterized by a quicker beating of the heart, faster circulation of the blood, a small rise in body temperature. It is energy-burning and energy-consuming. In plain words, it is hard work. The best meaning of the word, attention, is a collection of tensions inside the listener that can be resolved only by getting some facts or ideas the speaker is trying to convey.

Bad listening habit No. 7 is tolerating or creating distractions out in the audience. Sometimes you will be at the back of a big audience when there is a noisy little clique around you talking away so loudly that you cannot hear the man up front. Should you submit to this? Never, in my judgment. I think you ought to immediately wave an arm violently at the speaker, and in your loudest roar bellow at him, "Mister, can't hear you back here. Mind if we wave whenever you get inaudible?"

There is only one answer he can make. He has to thank you for your interest and turn on some decibels of intensity. One absolute obligation every speaker carries is the obligation of audibility. If he doesn't know it, force him into a recognition of it.

If you don't like my first option, try a second. Glower fiercely at the people right around you and suddenly scream at them "QUIET." Then look up intently at the speaker. This usually has a salutary effect on the situation.

Bad listening habit No. 8 is evading difficult material. This one is critical. I asked the 100 worst listeners about their radio and TV habits. I discovered that no tone of those bad listeners had ever sat clear through the program called "Chicago Round Table," "Invitation to Learning," "Town Meeting of the Air," "Meet the Press," "See It Now," or "You Were There." Instead they had become authorities on such programs as Bob Hope, Red Skelton, and "The Lone Ranger." I asked the 100 best listeners about this, and they knew who Bob Hope was, all right, but several times in their lives they had sat through one of these more challenging programs.

Take a youngster who has never heard anything more difficult than Bob Hope and put him in an auditorium something like this one. Trot out the best professor of biochemistry on your faculty and let him start to lecture. He cannot talk two minutes before the Bob-Hope-type listener says, "Gee, what is this guy talking about? I don't even dig this stuff." In panic, he beats it for the admissions office at the end of the first class period, cancels the course in chemistry and puts in one maybe in economics--just about as rough. There the poor kid is inundated, and he knows it. He washes right out of college, and he is gone.

Is it important? For every two young people starting college today, one washes out before the end of the sophomore year, and on most of our campuses before the end of the freshman year. At

the other end of most of our 4-year curriculums, for every one young man we can hand a 4-year degree, there are two companies standing there bidding for his services.

Fifty percent mortality on the intake--we meet half the demand for our product on the outgo. I get worried about this. If the reports I have read that come back from Moscow have any accuracy to them at all, the Russians are losing fewer than 5 percent of their high-ability crop of 18-year-olds every fall. Persistently, by contrast in America we lose just about 50 percent of our high-ability crop of 18-year-olds. I don't know how long we can stay in the ball game with them, with this unnecessary drain of potential-trained brainpower. I say "unnecessary," because, if we could subject ourselves and our children to even 10 minutes of uncomfortably tough listening once a week for 12 years, we would not have the present great washout at the university-freshman level.

Bad listening habit No. 9 is letting emotion-laden words get between us and the speaker. This is a curious business, too. But it is a fact that a single word may have such an emotional load to it that it will cause some listener to tune the speaker right out.

I ran into this accidentally several years ago. I was giving a talk to a large group of freshman about the nature of speech. I was saying something like this to the group: "You know, man was never born to be a speaking animal in the first place. We have 26 organs in the midline of our bodies that we use to talk with, and every one was put inside us for a more primitive, biological purpose--such as breathing, chewing, swallowing, and the like. Probably by plain accident some old Stone Age man made a grunt of some kind, was pleased with his product, and with it initiated, through a long period of evolution, a code of symbols that we eventually came to call speech."

I saw some frozen looks out front. I happened to have a long, objective test over that particular lecture content. When I scored the papers, I found that a whole bunch of my freshmen had missed a whole cluster of items right after the one that dealt with the evolutionary character of speech. Curious, I had interviews with them, trying to find out why. To my astonishment, I discovered that 40 percent of my freshmen had been taken aside by their parents and had been warned before being allowed to enroll in our good university down there, that they were going to run into a lot

of atheists on the faculty, and that these atheistic professors might try to undermine their religious faith. They were told that one way they could identify an atheist was when he started talking about evolution. Those little rascals had decided I was an atheist because I used the word "evolution" in a lecture. For Heaven's sake. It infuriates me. I am a Methodist. I am no atheist at all. But I learned one thing. You cannot use the word "evolution" when you are talking to freshmen on my campus without losing about 40 percent of your audience. I now say, "speech is a long, developmental process," they don't tune me out with the word "developmental."

Three years ago I was giving a talk at Lincoln, Nebraska, for a retail-sales convention. My audience was all female. I kept saying to the ladies there that night, "You clerks know what I mean. You clerks have had these experiences yourselves in your stores." They froze up on me. At the end of my lecture, five women, all abreast, came right at me out of the front pew, and they said, "We are not clerks." I said, "What do you like to be called?" One said, "We are retail sales personnel. And if you do not like that you can call us salesladies. But we are not clerks." I learned the bitter truth that night. Don't ever call a female a clerk. She will hate you for it. I don't know what is wrong with the word, but it is a fighting word for some reason.

I wish I could tell you all the words that cause listeners to tune speakers out, but I cannot do it. I can only give you a half-dozen that we are completely certain of. We have nailed these down. One word that does it with a lot of listeners is the word "automation." The worst word in the language, apparently, is the word "mother-in-law." Others are "pink," "fellow traveler," "Communist," "big business," "Harry Truman." These are words that have actually caused many listeners to tune the speaker right out.

What a silly business. After all, the word is not the thing. It is merely a symbol for it. Yet on and on we go through this life of ours letting symbols stand between us and self-growth. I wish we knew the 100 worst word barriers in the English language. If we knew what these 100 demons were, we could graduate them according to their difficulty, lay them out in the classrooms of the Nation, and put these silly barriers behind us.

Bad listening habit No. 10 is the most important of all 10. I have saved it until last for that reason. It is a little tricky, and you will have to tune me in or you will miss it. It is wasting the differential between speech and thought speed. Now, on the average in America, we talk 125 words a minute conversationally. But put a man in front of an audience and ask him to talk informatively, and he slows down to 100 words a minute, right on the nose. How fast do people listen? Or, to put the question better: How many words a minute can people think as they listen, if all their thoughts were measurable in words per minute? Three kinds of research I have not time to give you in detail all point to the same conclusion: Easy cruising speed of thought is always at least 400 words a minute.

Now, the differential between 100 and 400 is a snare, a pitfall, and a delusion. It is a breeder of false security and a breeder of mental tangents. What actually happens is what has been happening to me for the past 45 minutes. You have been tuning me in, and in 10 seconds have been able to identify what I was up to, and you have felt free to rip out for a 50-second mental holiday, which you did. Then, because you invested some energy getting here this morning, you cagily checked me in again, in 10 seconds found out what I was up to now, and you ripped out for another 50-second holiday. You are in for 10, out for 50, in for 10, out for 50. Really, it is not so bad if you always come back for the 10. But, sooner or later, on one of these mental excursions of yours, you may hit upon a topic too engrossing to drop.

Now, at your age levels I am not certain just what that one would be. I think I know what it usually is in the mind of a typical male college student. He goes to his engineering class, and the old professor stumbles on, drawing a big mock-up along behind him, then turns and glowers at the group and says, "Well, you birds think you are going to make engineers. Some of you will, but I am still going to flunk a couple of you, and I think you know which two I am talking about. Be that as it may, if you make a success in this chosen career of yours, it is going to be possible only if you have learned one fundamental thing on this campus; and that is that the most precious item an engineer even owns, and the thing with which he must learn to eat, sleep, live, and die at his side, is his slide rule. Thus, this morning I have brought out my big slide rule and I am going to review with you all the mathematic computations possible with this instrument."

The student is thinking, "That old goat. Is he going to spend another 50 minutes on that stupid thing? We have been around it 16 times in other classes. Got it first in junior high school." Tuning him in, he finds that the old man sure enough is multiplying one-digit numbers on the big slide rule. Immediately the kid gags mentally and thinks, "What will I do with that soft tire on my Ford? When I put the car on the lot this morning, I noticed that the right, rear tire was half down. If that cussed thing is clear flat at the end of the period, do I shift her between classes or let her sit?" Fifty seconds later he checks in on the professor, who is multiplying two-digit numbers on the big slide rule. Immediately the kid begins worrying about the chemistry test he has to take Thursday morning. Fifty seconds later he checks in on the professor, who is dividing one-digit numbers on the big slide rule. The kid is in and out about six times. Then on one of the outs a very important question comes to his attention: "Which woman am I going to call for a date for Saturday night," he wonders. He mentally runs over the various possibilities he had earlier listed in the back of his notebook, and stops at the name Susan. He has had her out several times on Saturday night, and he remembers that she is plump and jolly, laughs and giggles a lot, that you can always have a good time out with Susie. He recalls that she usually fixes something good to eat at the end of the evening, and that comes free, and that is good, too. He sits there reveling in the idea of another Saturday-night date with Susan. Then all of a sudden a very dramatic possibility comes to his cortical centers. "I wonder if I could rate a date with that Martha Something-or-other who transferred in here from Amherst College, I think it was. Gee, what a female. I have never seen a woman like that before in my life--tall, sinuous, and glamorous. When that gal walks it's like watching a snake crawl." This lad is off on a mental tangent from which there is no return.

The next thing he hears is the bell for the end of the hour. When the bell rings he hears the old professor say, "Remember, when you take cube root--" "Cube root on a slide rule?!" In panic he grabs some mate going out the back door and said, "What is with this guy? How do you take cube root?" He doesn't know, either. He was out on some other mental tangent.

This is why you and I listen with 25 percent efficiency when we listen, because we are a bunch of island-hoppers. We hop from one island of attention to another. While we are on land we do very

well. Most of the time we are in transit and do not even hear what the man says.

But, if you can think twice as fast as any man can talk, and I know you can, it should not be a handicap. Deliberately this morning I have been trying to talk 200 words a minute instead of 100, for two reasons:

1. I wanted to cover twice as much material in 50 minutes as I could possibly cover at 100 a minute.

2. I wanted to eat up some of the differential between my slow, bumbling, speech speed and your rapid thought speed, and it has not done me a lick of good.

The average cruising speed of thought of this particular audience will run well over 800 words a minute. You wanted to go somewhere four times faster than I could travel. No doubt it has been a handicap to both of us. But, if you can think four times faster than any man ever talks, it should not be a liability, for Heaven's sake. It ought to be the proudest asset we own. To convert what appears to be a liability into an asset requires only the continual practice of three mental activities every time we hear sustained discourse. I call these three things the ingredients of concentration.

Ingredient No. 1 is to anticipate the man's next point. Run ahead of him mentally, try to guess what point he is going to make, and think of it with a capital letter attached. Then check up to see whether you guessed right or wrong. If you guessed right, the point gets to your cortex twice instead of once. Learning is reinforced. If you guess wrong you are still the winner.

Out of curiosity most of us begin to compare Z with A, the point we guess and the one he made, and we are then applying one of the three oldest laws of learning in the textbook, which is that we learn best by contrast or comparison with something else.

Ingredient No. 2 is to identify what he has for evidence. No longer can a man go through life just asserting points. He has to build them, to be able to identify the bricks, the mortar, the steel and the wood with which the speaker supports each point he makes.

It will eat up some more of that advantage of thought speed over speech speed to our own benefit.

The third ingredient of concentration is the most important of the three. It is to recapitulate periodically as we listen. The good listener will tune the speaker in, listen hard for 4 or 5 minutes, and then take a quick mental time out. In that time out he will hastily summarize in his mind the best points made in the preceding segment of discourse. In 10 seconds' time, with that enormous thought speed of ours, we can rephrase in our minds the best points made in 5 minutes of talk. Half a dozen of these mental summaries interspersed throughout a 45- or 50-minute lecture just doubles our ability to understand and recall its content.

These are big dividend-payers. We ought to cash them in and make them work for us.

It is a matter of great satisfaction to me that the greatest teacher who ever lived, Christ himself, had something to say on this topic. At the end of one of His best sermons, reported in the fourth chapter of Mark, 23d and 24th verses, Christ said to the people before Him: "If any man have ears to hear, let him hear. With what measure you mete, it shall be measured to you. . . . And unto you who hear, shall more be given."

This summarizes very well the thought that I would like to leave in your minds.

COLONEL AUSTIN: Gentlemen, Dr. Nichols has promised to listen to your questions.

QUESTION: What retention rates have you found for reading comprehension?

DR. NICHOLS: Goldstein made a very close study of this. Surprisingly enough, he was the first man who ever really controlled reading rate. When you try to compare reading with listening, you immediately have a problem, a vitiating factor, because the fast reader will read 700 or 800 words a minute, perhaps, and he will go back and study the difficult passages. Goldstein made that impossible, because he threw the material on a screen one line at a time, and kept erasing each previous line. He found that retention in reading, if there is just one reading alone, is no better

than it is with listening. Actually, with an easy level of difficulty in material being read and listened to, listening was slightly better than reading. With difficult material, reading was slightly better than listening, probably because we have adjusted ourselves to thinking that important things are in print and that orally it is mostly junk.

QUESTION: What is being done to develop this type of learning by listening in the lower grades?

DR. NICHOLS: The Scott-Foresman Publishers came out 3 years ago with a new approach for grade school children. They call it their language-art series, and it is titled, "Learn to Listen, Speak, and Write." Immediately 150,000 copies of those books were sold and it has been a very good seller for them ever since. I think it is accurate to say that in almost all city school systems, at least, primary teachers know what you are talking about when you talk about learning to listen, and they are doing something with it. More and more materials are becoming available. Standardized tests are now in the market at all grade levels from one clear through adulthood, and training films are available now, many of them, for learning to listen better.

Our hope is that about one-fourth of the language training should be devoted to improved listening. I think it soon will be at grade school levels. This is the place to start, at the first-grade level, because we do not have the bad faults there. The best listeners in America, oddly enough, are the first grade children. I have data that I think is fairly good that indicates that the older we get the worse we get as listeners. It is because we practice our faults, instead of our skills. Early in life we develop a bad habit somewhere, and then we entrench it. The best listeners are the first grade kids. Ninety percent of them, if you make a test of it, know what their teachers are talking about at any given instant. Forty-seven percent of junior high kids know what their teachers are talking about at any given instant. Twenty-eight percent of high school students know what their teachers are talking about.

Before you decide to fire all high school teachers, though, because they are 72 percent inefficient, it seems to me listening training would be the better answer.

QUESTION: If our retention is 25 percent, how good can we get by training?

DR. NICHOLS: This is an excellent question. I am awfully glad you raised it. I think it is right at the heart of the whole discussion. We have to do this thing by measuring the immediate comprehension and recognize that there will probably be a severe fall-off in that comprehension level. So what we try to do is to raise it from 50 percent in the immediate listening situation up to close to 100, and then expect a 50 percent fall-off. Now, with our freshman trainee group, we have never failed to get at least 25 percental ranks gain in listening proficiency from the training received in a single term. That would be about 20 class hours devoted to it. With 60 adults in a night class I had, business and professional people, the gain was 42 percental ranks in listening proficiency from the training received.

Now, this may sound pretty good to some of you. It is not as good as we are doing in reading. We have better techniques in reading. We have more research behind it. And many times we can multiply by 3 or 4 in reading rate and comprehension, whereas we only double, essentially, the listening rate and comprehension.

Now, I think implied in your question also, if I may go a bit deeper into it, is the question: How can a person flatten that forgetting curve? Let me draw a picture of it on the blackboard. Now, essentially, that is an outline of a forgetting curve. There is always an early downward swoop, and then a leveling off. The ideal thing for any school teacher or instructor, of course, would be to be able to flatten that forgetting curve. If we could get a flattened-curve distribution instead of this fall-off, it would leave a tremendous impact on all learning.

As far as I know, there are only two ways to flatten the forgetting curve. One is through repetition. When I was a kid, I said over and over, playing on the sidewalk, "Hi diddle diddle, the cat's in the fiddle, the cow jumped over the moon." For 40 years I have tried to forget that stupid thing. I cannot forget it, because it was drilled in through repetition. The best way to flatten a forgetting curve, I think, is to repeat the material learned right after you learn it, and then periodically, every hour or every day, for a few hours or a few days, and then you cannot get it out, even if you want to. It is going to stay there.

The three ingredients of concentration I mentioned a few minutes ago, anticipating, identifying, and recapitulating, are essentially merely devices to force you to repeat mentally what you are currently assimilating. They are repetitive techniques.

The other way to flatten the forgetting curve the psychologists describe--and I am not sure I understand them--is something like this: They say the way to do it is to see new relationships in the material being learned, endeavoring to get an insight into the content. I am not certain just what this means. I think what they are saying is that we ought to add what we are learning presently to what we already have known, and kind of reorganize what we have learned earlier in terms of the new stuff coming in. This makes some sense. You can make a part of what you already have learned earlier what you are learning right now. On the margin, so to speak, it does tend to stay with you better.

Readiness has something to do with it. If somebody tried to teach me calculus, they would have rough going. If I were one of you and had had all the previous math courses, and then they tried to teach me calculus, I probably could get it. So you see it is a matter of learning on the margin of what you already know. Readiness must be a factor in the psychology they are talking about.

QUESTION: I am interested to know how your two groups fared, your 100 poor students and your 100 good students, in listening, after you had worked on them for, say, a year.

DR. NICHOLS: This is an excellent question, also. On my campus we screen out every fall the bottom 25 percent in listening ability of the incoming freshmen. We say, "You people are bad listeners. We are going to give you some listening training the first quarter you are in school. If we don't do this you won't be with us long." We are accurate in that. If we don't train this bottom 25 percent they have only 3 or 4 chances out of 100 of ever getting a 4-year degree. If we do train them we can salvage almost half of them for 4-year degrees.

Consider the following: The average percental rank of the bottom 25 percent would be 12.5 percental rank, wouldn't it? Now we train them and invariably we gain 25 percental ranks, so at the end of the first quarter of training, they move from an

average of 12.5 up to 37.5 percental rank in their freshman population, in listening ability.

This does what? It puts them back into the competition. They are back in the middle territory or pretty close to it, and they are able to fight for a C grade, with a pretty good probability of getting it. But, if they stay down there at 12.5, they cannot get a C grade. They cannot get through school. Exactly the same picture is true in reading. We take the bottom 25 percent in reading ability and immediately teach them how to read. If we don't they are not going to be with us long. They have but few chances in 100 to graduate. If we train them in how to read, we can save half of them.

We think this salvage operation is worth the effort because, from the colleges that I am associated with, we always have about twice the number of jobs waiting that we have graduates for. We are trying to salvage all we can.

QUESTION: How do you train these people?

DR. NICHOLS: An excellent question. We think that the heart of listening training must be motivated practice. It is much like reading-comprehension training. You have heard of these speed reading courses. We like to have them have 10 minutes of practice listening every class session. This is tougher content than they enjoy. We definitely always give them a little feeling of discomfort, and make the material a little tough for them to grasp, and we continually increase the level of difficulty of this, with 10-minute exercises one after the other, and always follow every exercise with a comprehension test.

Then we put the youngster's comprehension score up on a bulletin board and keep it there, so day after day and week after week he can tell whether he is getting better or worse, as the level of difficulty comes up on him.

Now, that is only 10 or 15 minutes out of the class period. The rest of the time we like to have some theory discussed and talked about, and we like to have them do some reading and get some theoretical background from their reading. We like to have them study taped incidents of bad and good listening, the great listeners and the bad listeners, and discuss these in the classroom

in a socialized-performance kind of procedure. Then we have training films and standard tests that are tucked in as well.

QUESTION: Do you advocate more reading and fewer written reports?

DR. NICHOLS: Yes, sir. I don't know how many toes I will be treading on, but you have asked me a blunt question and I am going to take an honest position on it. We think America is drowning in a sea of paper. Personally, I think that memorandum mania has swept our Nation. Dr. Vannevar E. Bush put the thing very beautifully when he said, "One of the greatest problems in America today is the unread report." He goes on to say that the work of hundreds of able men is being lost every 24 hours because they are discovering important things, putting them on paper, putting that in a file somewhere, from which it never again can be found.

I think this is literally the truth. I think we are drowning in these memoranda. My answer to it would be to have listening training and to eliminate vast quantities of paper work by the greater use of the telephone, face-to-face communication, organized discussions. I admit that many discussions are merely bull sessions, but, if every conference or discussion is planned for, if it has a definite objective or problem, with the demand that an answer come up, and sometimes with a deadline attached, discussions can be productive.

Now, to try to generalize here a bit--I think I am being a little confusing--I would put it this way: If the message is simple, always make it oral. Suppose you want to tell Joe to call your wife to tell her you are going to be delayed 50 minutes and you cannot get home, and she is expecting you. You say, "Joe, as soon as you get back to the office would you call my wife and tell her I am hung up, that I cannot even get to the phone to call her?" This is a simple message that should never be written.

The second kind of message, it seems to me, is the very detailed one. You have a bridge party at your house. Twenty people are coming. Your wife gave you a list of 14 things to buy at the Supermarket to get ready for the bridge party. You cannot get away in time to go and buy these things. You say, "Joe, I am on the hook here. I have to get these things. We have a big party

coming to my house. Would you be willing to stop at the Supermarket and pick these up?" You would better give him a list of the 14 items, or he is not going to get it right.

Then there is a third level of difficulty of message--the highly critical or crucial message in life--and I claim it always should be face-to-face communication. Throughout history no great and wise decision ever was made without speech and listening being involved. If you are going to fire a man, call him in and tell him so, face to face. If you are going to tell a manager he has to reform his whole program, go and talk to him, face to face. The great, the crucial, the critical decisions ought to be eyeball-to-eyeball communication, in my conviction.

So you use oral communication for the simple and the crucial, and the detailed things you may have to write out.

QUESTION: How do you train yourself to stop evading the difficult when you are listening to a speaker?

DR. NICHOLS: Through the "intention to report," I think that the best technique I personally have hit on for this is to say to myself, "Nichols, can you give a report of this to somebody? I am going to force you to give a report." If I give myself the assignment of saying, "This is tough. Gosh it is getting technical," I say, "But I have to tell my wife or my youngster about this when I get home." If I give myself the responsibility of reporting what I am hearing, it sometimes helps me to try to tackle that difficult content.

QUESTION: In one of your 10 items of making listening difficult, you say that the problem was a differential between the hearing and the speaking, that it was 400 versus 100, or something. Why in this particular question-and-answer period have you reverted back to the level of 100 words a minute, when you said it was better to talk faster?

DR. NICHOLS: I wasn't aware that I had reverted back to 100 words a minute. It could very well be that I have done so, however. If so, it may be a lack of enough familiarity with the content to answer your questions at 200 words per minute. I have to think more carefully as I go along.

QUESTION: Doctor, has any work been done to prove the validity of learning while you are asleep?

DR. NICHOLS: I have very little confidence in this. If I understand the research reports on it, we had hopes that we could learn foreign languages by putting a play-back under the pillow at night, you know. As I understand it, the summary of this research would lead us to believe that we learn a little as we drift off to sleep and we learn a little as we wake up, but while we are sound asleep most of the time it is nonproductive. I really don't think it has turned out to be the panacea that we had hoped for. We do learn a little on pronunciation, though, apparently, through this technique. You get a little better feeling for the dialect or the pronunciation of foreign sounds through this constant drumming in through the ear drums.

QUESTION: Can we prevent the disadvantage of the weakness in listening by the use of audio-visual aids or something that will help in comprehension and retention?

DR. NICHOLS: Probably 50 men in the room would know more about visual aids than I do. I find that the Armed Forces are terrific masters and experts in visual aids. The more sensory mechanisms we employ, as we learn, the better off we are. You see, a man ought to have some visual aids, because then he is introducing the visual channel of learning as well as the oral one.

How many should we have? I think they should be used rather sparingly. Some people overload their presentations with visual aids to a point where the visual aids get to be a bore to the spectator and listener. If we could also employ the other sensory mechanisms of touch, taste, and smell, as we talk, we would gain a little something.

Now, the visual aids don't add as much, apparently, as we had hoped they would. I believe they tend to produce an average improvement of some 5 to 10 percent. We had hoped that we could double understanding, by using visual aids, but it has not turned out that way.

QUESTION: Maybe this question is too impolite to ask. Why didn't you use visual aids in your talk this morning?

DR. NICHOLS: Well, the visual aids I wanted to use would have been a little difficult here. With an overhead projector and a huge screen, then I can use them and everybody can see them. Also, I was afraid that they would slow down my pace and lose some time. It was the time factor, basically, that made me cut them out.

QUESTION: In comparing your 100 bad listeners with your 100 good listeners you gave them an extensive battery of tests. Did you find any interesting or significant correlation between your intelligence and personality tests?

DR. NICHOLS: Thank you, sir, for that question. It is an excellent question. In fact, I don't think I have ever had as many penetrating questions as I am getting this morning. You are asking the things I like to talk about.

If you run a correlation between listening ability and intelligence, measuring both with group-type tests--pencil and paper and character--the correlation factor is .54. This is as opposed to a perfect correlation of 1.00, of course. Now, if you use a nonverbal type intelligence test, such as the Wechsler-Bellevue, and then run a correlation between listening and intelligence, it drops down to .22. It is a positive correlation. Intelligence is a factor, but it is such a tiny factor, really, that it is dwarfed into insignificance by the bad listening habits that I mentioned. You can correlate red hair and intelligence and come up with a +.22 correlation, you know.

Incidentally, if there is time, I would like to tell them about the difference between males and females on this matter of intelligence. On the St. Paul campus one year I measured the IQ and the listening ability of all the female and male students. The average IQ of my females was 119, largely drawn from the School of Home Economics. These are very bright girls. The average IQ of the whole university undergraduate population was 117. So they were 2 points above the all-university average. Then I measured the IQ of all my male students. They were drawn from engineering, vet medicine, agriculture, forestry, and a few odds and ends that were tucked in. Their average IQ was 115. They were 2 points below the all-university average, and 4 points below their female competitors. Then I measured their listening ability, and I got a critical ratio of 2.1 in favor of the males.

Now, essentially, what that means is that about 95 times out of 100, a male student, on a technical campus such as mine, will be a better listener than a female, even if he is 4 points stupider.

COLONEL AUSTIN: This may be a good point to conclude here also. Our time has definitely run out, Dr. Nichols. You asked us to listen selfishly. I submit we have done just that. Thank you very much.

(16 December 1964--5, 900)O/en:pd