

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.