Accuracy in Communication

In this discussion, I will consider accuracy in communication in the research area. How does the researcher or experimenter have to behave communication-wise to be a productive person in research?

I am discussing problems encountered by the person doing experimental science or experimental engineering research where the job is to (1) recognize a problem that becomes a question, (2) design a test program that will experimentally ask the question, (3) go into the laboratory, carry out an experimental program and obtain a set of data that is usually called "results," (the answers to the question) and (4) reconcile the results of the experimentally asked question with the original question.

In this discussion, we will not be involved in the quality aspect, which is whether the right experiment was designed (the right question was asked to obtain an answer to the desired question). That is a separate issue. We will assume that the right question was asked so that if that question is answered, the answer to the big question is obtained or at least more light is shown on the subject.

There are a number of interesting questions raised in an article in Forbes FYI for September-October, 1994. William F. Allman. write an article entitled, "Why Bill Clinton's Brain is Bigger Than a Baboon's or How Homo sapiens Lied His Way to the Top." His opening statement is "Let's face it: Everybody does it. From the lofty perches of high office--"I didn't inhale'--to the dens of the lowliest of commoners--'Mr. Buckley, I promise I'll have that story in early nest week'-- the world is engulfed in webs of deceit, fibs, and tall tales." (Mr. Allman's article is appended to this report.)

When I read Mr. Allman's article, I was immediately taken with the idea than in politics and diplomacy, lying seems to be one tool of the trade. Mr. Allman states, "In many instances, lying is not only a social and psychological balm but also a gentleman's obligation." First is this true? and secondly is there not a cost to both the person and society?

I suppose that I am confused on a number of points. What is the difference between a person who knowingly lies and a person who (lies unknowingly?) does not know they are lying. I am suspicious that there are people who lie generally and at the same time lie to themselves; they are not consciously lying in that they don't consciously know they are lying.

There are people who say that it is all right to lie to avoid hurting some one's feelings. Your boss's speech may have been a terrible dud, but you say to him, "I really enjoyed your lecture." My question is, if you carry out a laboratory experiment with a new drug product and it doesn't perform very well but it is your boss's pet drug, do you tell him, "Gee, it's a pretty good drug"?

I suppose obviously one would say, "Well, in the case of the drug, it's very important to be extremely accurate and if you are going to err, err on the conservative side, but when it's just a comment about a lecture, it's all right (to lie) to err very much on the optimistic side. If the same person has the new chemical that gave the lecture and it is the person for whom you are working, and you know that he loves praise and success and that he doesn't tolerate bad news very well, are we, as individuals capable of giving him a sugar pill about his lecture and then quinine with regard to his chemical?

In an article in the September 19, 1994 "The Scientist," Susan Dickinson indicates that since the beginning of 1994, seven companies have been hammered by highly-publicized clinical trial failures. The result has been dramatic drops in their stock prices. She discusses different reasons why this may have occurred, but I do not think that she touches on the point that the scientific staff of these organizations may have been part of the problem. She says that these biotech companies are under pressure to have good, positive results. Isn't it logical to suspect that if the companies are under pressure, they will be putting pressure on their scientists to come up with positive results? If only one scientist in five (20 percent) is conservative on product performance, has guts enough to tell the truth, won't the one in five be outvoted? In the pressure cooker laboratory we not only have the problem of "no guts" for bad news but the worker at the bench, because of his boss's expectations, will unconsciously develop data that are biased in the optimistic direction. My conclusion is that in a situation like the one described above, it is probable that the majority of young workers will have been conditioned to give the optimistic non-truth or shaded truth answer to management.

IJP10/14/94.