

HOW TO GIVE A GOOD RESEARCH PRESENTATION

Prof. Daniel T. Gilbert, Department of Psychology, Harvard University

(with a couple of tiny edits by Steve Lindsay)

1. HAVE A PLAN

Nothing is as important as having a cohesive organizational plan in which one point leads naturally to another. Usually this begins with (A) some background about the area of research, which leads into (B) background on the specific hypothesis, which leads into (C) the specific experimental question you want to address, which leads into (D) the procedures you followed, which leads into (E) your findings, which leads into (F) their interpretation, which leads into (G) the relevance of your findings for the problem you are addressing, which leads into (H) implications and the "big picture." In addition, each one of these sections must be logically organized in itself. A logical argument is the basis for communicating with your audience. If you don't have one (a logical argument) you won't have one (an audience). Write your plan in (at least) outline form, and use these notes during your talk. If you must, you can write the talk out word for word. If you must have a canned talk, memorize it! Then use your notes as a prop. Ultimately, reading a talk is better than giving a terrible talk-but only a little.

2. TELL THE PLAN

It is useful to give listeners a roadmap for the terrain you wish to cover. Tell them in just a sentence or two the organizational plan (e.g., "I'd like to talk today about the effects of alcohol on reasoning, specifically, how alcohol enhances some cognitive performances and impairs others. I'll start with some general background information about research in this area, and then I'll present to you some research that Professor Snorkworth and I have conducted on alcohol use and motor performance. Finally, I'll try to show you how this research addresses the important question of whether motor systems can function independently"). On occasion, a speaker may wish to use suspense as a rhetorical device, and under such circumstances this "Tell the Plan" heuristic is inappropriate. Let experts worry about rhetoric: You should forego suspense in favor of comprehension. Finally, refer back to the plan throughout your talk. Use speech markers to let your audience know where you currently are in the organizational plan (e.g., "Having briefly outlined the past research in this area, let me now turn to the experiment that we recently conducted").

3. START AT THE BEGINNING

Every experiment is part of a long story that begins with an idea of Aristotle's. There are two things you can do wrong in choosing a point in the story at which to begin your talk.

(A) First, you can start too early. You have started too early if you are not talking about your hypothesis within 10 minutes. You are starting too early if you mention Aristotle anytime after the first minute. You must know the audience and try to figure out what they already know. You can refresh their memories briefly, but get to the point as quickly as your audience's knowledge will allow.

(B) Second, you can start too late. You have started too late if your first sentence has anything to do with an experimental manipulation. An introduction sets the stage and explains why you did the experiment you did. Don't say, "I did an experiment on alcohol and reasoning because alcohol abuse is a real problem in society" but say "For centuries people have been using substances that affect their ability to think, feel, and act. Alcohol is one such substance. Yet, we still don't know precisely how alcohol affects performance..." Don't relate the entire history of psychology, but don't act as though there were no history. Even if your experiment is completely novel and revolutionary, you must tie it into something your audience already knows about or cares about. The introduction of a talk locates your work in the body of other work.

(C) Before you can tell what you did, you must tell why. You must make the audience realize that your experiment is potentially an important one. You must intrigue them by showing the hole in the body of knowledge that your experiment serves to fill. It is wrong to assume that everyone shares your interests or that any experiment is worth doing. In the introduction you must impress the audience with what needs to be done (and later you'll impress them even more by having done it). Thus, a rationale such as "Emotions are important because everybody has them" does little to make the audience ready for your contribution. On the other hand you might intrigue the audience with something like, "Emotions lie at the heart of social behavior -- from altruism to aggression, the emotions we feel compel us to act towards each other in a variety of ways. Yet, very little is known about the physiological basis of emotion..." You must have had a reason for doing the research you want to talk about, so tell the audience what it was in the most interesting way possible.

4. BE PAINFULLY CLEAR

Once you are talking about your experiment, you should strive for three things: clarity, clarity, and clarity. Nothing matters if the audience doesn't understand what you did and why. A few points to remember:

(A) When you describe your experiment, explain first what conceptual variable you manipulated (e.g., "In order to test this hypothesis we manipulated the anxiety level of the subjects"). Only then should you explain the operational variable (e.g., "We did this by exposing half of the subjects to an uncaged lion. These subjects were the 'high anxiety' group. We exposed the other subjects to an uncaged rabbit, and these were the 'low anxiety' subjects").

(B) Be redundant. Say the same thing several times in different ways. Remember that your audience cannot process your speech nearly as well as they can process your writing because they can't go back and reread something you said, and they can't listen at their own pace. Any important point should be

stated twice (e.g., "We think alcohol impairs some cognitive processes but not others. In other words, while some performances are enhanced by the ingestion of alcohol, others are disrupted").

(C) It is generally unprofessional to say "Is all of this clear so far?" but it is far better to do this than to lose the audience. If you think the audience is lost, you should ask someone whom you know won't be afraid to tell you the truth. Most audience members will be too embarrassed to tell you they're lost, but they will look around, exchange glances, and make you feel foolish. Find a trusted friend in the audience and direct the question to him or her.

(D) Make use of visual aids (e.g., a drawing of your 2 x 2 design). A picture is worth well over a thousand words. Supplement your speech with pictures. But -- remember that a complicated picture is useless and causes the audience to stop listening to you while they try to figure out your picture. Thus, when you use a picture, use a simple one with BIG letters. Also, give the audience a moment to read all of the words on a slide before you start talking again; otherwise they may miss what you're saying as they scrutinize the slide. Remember also to get rid of a slide when you're done with it. It can prove distracting when left on too long. Last, you should note that handouts are usually a bad idea, because you cannot determine what the audience looks at any given time. People always look ahead with handouts, and may miss your preliminary comments while they peruse the handout. Use slides, overhead transparencies, or computer projections instead.

(E) Present data kindly. If you must present lots of data, present each piece separately on a different slide. A slide full of numbers is about as much fun as a painful tooth extraction. Use figures instead of tables whenever possible. Present the most important data first! (Present manipulation checks first when it is necessary for your argument, but not otherwise). What the audience wants to know is, "Did your experiment support your primary hypothesis?" so answer this question before they start asking, "Can I go home yet?"

(F) Take the audience's perspective. This is true in every facet of the talk. Try to see your ideas as a naive audience member would. Of course you know that exposure to lions is a way of manipulating anxiety, but does the audience? If not, did you say it? Don't leave anything important unsaid. The best way to take the audience's perspective is to get a practice audience (intimates are traditional victims) and give your talk to them. Did they follow? You shouldn't have to be a psychologist to understand the talk-any reasonably bright person should follow it. Address your talk to a bright colleague in the Art History department. And listen to the practice audience's advice! Remember: When listeners tell you that something is confusing, they are always, by definition, correct.

5. TALK ABOUT ONE INTERESTING THING

(A) A good talk must have substance. You can't give a great talk on a stupid, dull, or boring idea. However, the converse is not necessarily true: A brilliant and exciting idea can easily be the topic of a bad talk. Thus, the first rule for giving a good talk is to have something interesting to say. If by chance you have two things to say, control yourself. A talk must have a central theme-people can only handle

one major idea per talk. Ask yourself "What is the take-home point here?" That is, what is the one-sentence summary that you hope a listener will give to his or her friend when the friend says, "What was the talk about?" Of course your research has complexities and nuances of great beauty. Go home and write a poem about them. But give your audience one and only one message, and give it clearly.

(B) Talking clearly means not distracting your audience. Do you pace? Chain yourself to a chair. Do you say "uh" between every sentence? Get therapy. Do you touch your nose or your chin all the time? Cut off your hand. All of these things can be distracting, because when you are anxious you will do them very fast. As a result, you will not pace in a relaxed, professorial fashion; you will actually run from one end of the room to the other. (You'll also often find that you need to look at your notes and they are on a different side of the room than you are). To find out what annoying stylistic nuances you have, tape record or video yourself. This is painful, but worthwhile.

(C) Humor can be useful. A light remark puts the audience at ease and shows them that you are relaxed and confident. However, too much humor is surely worse than none at all. People will only consider your work to be as serious as you seem to think it is. If you imply that it is a big joke, they will take you at your word. In addition, keep in mind that nothing is worse than a joke that just doesn't cut it. Here's a good rule: If you don't know how much humor is too much, don't use humor. And never under any circumstances tell long jokes that sidetrack you, like the one about (oops!).

6. TAKE CHARGE OF THE INTERACTION

(A) This is your talk. Don't let someone else take control of it by forcing you to deviate from your organizational plan. If someone requires clarification (e.g., "Were the anxious people exposed to the lion or the rabbit?") then answer them briefly and continue. If someone wants to argue philosophy (e.g., "But don't you think that psychology errs when it thinks of people as real?") don't take the bait. Audience members may try to throw you off track and you must not let them-but you must stop them with great tact. Anyone can say "Shut up, numb nut, I'm trying to give a talk here." But the expert can say this in other words and still maintain an air of confidence and professionalism. A good standby is something like, "That's an interesting question, and I'll be addressing a related issue in a few minutes, but if I don't answer that particular question, please ask it again at the end of my talk." (Of course, if you use this bit of diplomacy you better be prepared to answer the question at the end of the talk.) If you can't even understand the question you can always resort to something like "To be honest, I'm not sure I see the full implications of what you've said, but if I'm going to cover all the ground that I've set out to cover, I think I best delay a discussion of that until later." You may be scared to interrupt a questioner who is persistent, but remember what Ann Landers would say: The interrupting questioner is acting impolitely and you have every right to get the exchange back on track by taking charge. In fact, you owe it to the rest of the audience who have come to hear you -- not the questioner.

(B) Novices often make the mistake of agreeing with criticisms they can't understand, because they think they will look foolish otherwise, and they think that the questioner will get off their backs if they just agree with him or her. By no means should you verbally agree with any critic unless you really

understand his or her point and agree with it. If you do, you will find yourself backed into a corner later on (e.g., "But you earlier agreed when I said people weren't real, so how can you now maintain that your data tell us anything about people?").

(C) Other novices may make the opposite mistake—they are sometimes too defensive. If a person attacks your study, they are not attacking you. (Well . . . actually, they may be. But pretend they're not). If they have a valid criticism of a bad study, your refusal to acknowledge their point will make you look both stupid and immature. If you acknowledge their point you'll just look stupid. The best way to avoid damning criticism is by letting others hear your talk first. Let a practice audience member (who loves and adores you) find the weaknesses in your argument, and then repair them before you speak in front of people who don't even love you a little. This is another benefit of writing an organizational plan. When you try to write your argument you will see most of the flaws in your own logic. Better you than your audience.

7. END AT THE END

(A) The same sins that pertain to starting also pertain to ending. You have ended too soon if, after presenting your results you say "So that's what we found. Any questions?" You must summarize in two steps: First summarize your findings (e.g., "So, these data show that people who are made anxious subsequently tend to show more interest in sex than do people who are not made anxious."). Second, show the meaning of your findings for the "Big Picture" (e.g., "Theorists have always construed anxiety as a deficit, but our findings show that it can indeed have positive consequences"). Finally, it is nice if you can point out what other provocative questions your findings suggest (e.g., "It would be interesting to know if the anxious person's increased interest in sex is accompanied by an increased ability to perform. We have several field studies in the works that explore . . .").

(B) You have ended too late if (a) the clock tells you so, (b) the audience is yawning, or (c) you are spinning your wheels. If you have one hour to talk, plan a 45 minute presentation; in any case, practice the talk so that (in addition to all of the other benefits of practicing mentioned above) you will know exactly how long it takes. Part of being a good teacher is knowing how to pace yourself, and at a job talk people will be watching to see if you can end on time. If you run over your limit by more than ten minutes, look for another job. In any context, a verbose speaker may lose all the points he or she has previously won by going on and on and on and on. Don't leave the audience with a "bored taste in their mouths" -- even if the talk was good, all good things must come to an end. So, make your point, make it clearly, show why it's important, and then shut up. Like this.