

Excerpt from Chapter 4

CHAPTER 4

A Herd of Cats: Managing Scientists

Whether you are a molecular biologist or a particle physicist, chances are that you do much of your work in teams. If you manage a team of scientists or technical professionals, you may find that most of your time is spent mediating disputes, ironing out misunderstandings, and placating bruised egos. As we have seen, there is a good reason for this: The people you are managing are focused on technical and quantitative aspects of their jobs, at the expense of the interpersonal and social aspects.

But there may be another reason that you spend a lot of time on these matters: You may be laboring under the same interpersonal deficits as those you manage. This chapter shows you the kinds of problems to expect when managing groups of technically oriented professionals, as well as how to deal with them should they arise. You will also learn about your possible blind spots that can make your job as a scientist/manager harder than it has to be. Our approach to helping you to become a better manager of scientists starts with helping you to be a better observer of yourself and others.

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A GROWING AWARENESS OF TEAMS IN SCIENCE

During the past 50 years, science has increasingly been done by groups of scientists with complementary or overlapping skills. This is especially true in the private sector in companies of all sizes. Although the era of the scientist as individual practitioner is by no means past, it is clear that more and more of the dollars spent on scientific research (both in the public and private sectors) are spent on projects involving groups or teams of scientists.

There is increasing awareness of the trend that scientific endeavors are becoming more complex, interactive, and social. A recent NIH conference on “Catalyzing Team Science”^{*} speaks to the importance of teamwork in the life sciences. Increasingly, graduate programs attempt to impart communication and other “meta” scientific skills to their students.

To say that science has become a social occupation is not to say that scientists themselves have become social creatures, or even that they should if they are not already. Increasing the size of groups adds scientific skills, expertise, and sometimes simply more hands to do the work. In practice, however, the accessibility of members’ skills and information to the group depends on how well the member scientists relate to one another. In the worst cases, information and expertise are shared selectively or not at all, data are hoarded like a scarce currency, and team members lie in wait for the most public opportunities to demonstrate superior knowledge. More often than not, science managers and leaders fail to recognize or deal with such behaviors, much to the detriment of the group or organization.

Anyone who has managed science and technical professionals working on complex projects requiring collaboration and interaction knows how difficult this can be. Let us examine some of the challenges and some of the ways of meeting them.

SCIENTISTS MANAGING SCIENTISTS: CHALLENGES AND OPPORTUNITIES

If you are a technical professional, it would probably not come as a big surprise to learn that some people in your organization think that you are hard to manage or a poor manager. In the private sector, scientists are often sent to management training seminars. These typically teach participants to set goals and objectives, give feedback, do evaluations, and manage projects. These are all important skills and worth learning. However, your success at applying these skills is not determined by how well you know them or even how long you use them. It is determined by how well you understand yourself, and how well you relate to and respond to the people to whom you need to apply them. If you are oblivious to your own motivations and feelings, you probably do not pay attention to or understand the motivations and feelings of those you manage. If you interpret silence as agreement, repeated absences as laziness, and failure to follow instructions as forgetfulness, you cannot be an effective manager.

Some of the studies we cited in Chapter 1 suggest why science professionals make such misattributions: They may not notice interpersonal conflicts; discern underlying motives, needs, and expectations; or listen carefully. We would also add that they are probably not very self-aware.

The good news is that as a scientist, you are the best possible choice for managing other scientists, either as a team leader or an executive. In the following we introduce skills and concepts that will improve your ability to manage teams. Case studies illustrate how improving self- and interpersonal awareness can help in real world situations.

^{*}Conference BECON 2003 Symposium on catalyzing team science. June 23–24, 2003, Natcher Conference Center, National Institutes of Health, Bethesda, Maryland (http://www.becon.nih.gov/symposia_2003/becon2003_symposium_final.doc).

Ignoring problems and conflict in a team

The interpersonal difficulties of scientists often stem from an aversion to admitting that a problem exists. If you are unsure what to do about a problem, or are uncomfortable thinking about it, you will likely avoid it. But if you are a team or group leader, ignoring problems in your group can have a detrimental effect on team morale and productivity.

Some common problems with which scientific team leaders have difficulty dealing include

- Employee performance or attendance problems. Perhaps your technician consistently has difficulty with crucial experiments, keeps undecipherable notes, or routinely misses one or more days of work each week. You compensate by double-checking his protocols, having him e-mail his raw data so that you can analyze it, and rescheduling experiments because he is absent. What you do not do is address the problem with the technician.
- One member of your group consistently complains about the lab, other people, and every piece of equipment that he uses. He also finds fault with every lab policy and voices these complaints to anyone who will listen. People in your group tell you that his negative attitude is getting on everyone's nerves. Your response is that his complaints are harmless and should be ignored.
- A new member of your lab has personal hygiene habits that others find offensive and distracting. He bathes infrequently, which makes working near him unpleasant. When a lab member complains about this to you, you are sympathetic, but find it impossible to imagine how to broach the topic. The person becomes a pariah in the lab and wonders why no one talks to him. His work, and yours, suffers because no one gives him the advice or assistance that he needs.
- One of your technicians talks on her cell phone using a head set while doing experiments. She speaks in a loud voice that you can hear in your office across the hall. Although no one mentions this to you, you suspect that others in the lab are having difficulty concentrating. You decide to ignore it until someone complains.
- One of your most capable scientists is a bully who routinely manipulates others into relinquishing equipment time, technician help, and supplies. He behaves as though his work is more important than theirs. You do nothing because he is productive and you figure that the group members need to work it out among themselves.
- A female employee in your group has a hard time getting her point across in meetings because she is soft-spoken and gets routinely interrupted by several loud males. You observe this but decide to do nothing, figuring that she needs to learn how to roll up her sleeves and jump into the fray if she is going to succeed.
- A female employee complains to you that a male co-worker is viewing pornographic images on his laptop in the conference room. You are at a loss about how to broach the subject to him, so you do nothing.

These situations, to which we return shortly, are all examples of conflict avoidance, one of the most common and damaging mistakes made by managers of science teams. Recall that lack of awareness of conflict among team members was one of the personal-

ity characteristics that Gemmill and Wilemon (1997) found to be more pronounced in scientists than in nonscientists. The simplest way to avoid conflict is to be oblivious to it. If you do not pay much attention to other people, miss subtle cues in their behavior or manner, and if you ignore, dismiss, or trivialize what makes you uncomfortable, you will not be aware of conflicts simmering all around you.

If the conflict erupts into a full-fledged war, as happens in the case study below (Ignoring Conflict), it may be impossible to ignore. In this case, you may take another path to avoid conflict by simply doing nothing about it. I have heard many scientists in responsible positions assert that the reason that they do not intervene in whatever conflict is under discussion is that they think the warring parties ought to “work it out themselves.” But if you have gotten this far in the book, you may suspect that this is code for “I don’t have a clue to how to help resolve this problem.” This is the main reason we avoid conflict: We do not know how to deal with it. Moreover, many feel that conflict is to be avoided at all costs—it should never occur in the first place.

This, of course, is all wrong. First, conflict is inevitable and can even be a useful mechanism for bringing out differing views. Second, working through a conflict does not have to involve angry confrontation, insult, or accusation. Third, you can learn to work through conflict in a collegial and productive manner. Many of the negotiation techniques that we introduced in Chapter 3 are also good tools for resolving conflict. If you suspect that you ignore or avoid important issues because you are conflict-averse, try one or two of the tools in Chapter 3. But take your time. If you have spent your life ignoring conflict, do not insert yourself into thorny situations all at once.

The following case focuses on a team leader who is unaware of a simmering conflict in his lab, with unfortunate consequences for the project and the group’s productivity.

▶▶ *Case Study: Ignoring Conflict*

Ralph was a senior environmental policy analyst in the Environmental Protection Agency (EPA) and he ran a group specializing in industrial ground water contamination. He was preparing to submit a lengthy and technically detailed report on behalf of the agency regarding a ground water contamination suit being reviewed by a state court.

While working on the report, he noticed some discomfort on the part of two of his three junior associates, Richard and Teresa, about what exactly should be included in the report, but he did not ask them about it. He finished a close-to-final draft and gave it to all three junior associates for review.

Richard and Teresa objected to including the third associate, Tony, as an author of the report. Ralph explained that Tony had contributed some of the analysis cited and should be named. Richard and Teresa said that they did not trust Tony’s results and demanded that Ralph omit Tony’s name from the report. Ralph was stunned. He had no reason to believe that Tony’s analysis was suspect, but he did notice animosity among the three associates.

Ralph responded that Tony had been part of the team all along and was deeply involved in its planning, analysis, and strategy. He concluded that the project had been a team effort and that Tony’s name should remain. Richard and Teresa refused to have their names included on the report unless Tony’s name was removed. Ralph was anxious to resolve the situation before the end of the day, which was the latest that the report could be FedExed to reach the court in time. He pushed the discussions, but Richard and Teresa grew more and more agitated. Ralph called their behavior outrageous and likened it to blackmail. At that point, Richard stormed out of the office and did not return until the following day, after the deadline had passed. The EPA lost its chance to present the work to the court and Ralph started disciplinary action against Richard.

There are many ways of looking at this situation. One is to take an approach that might come naturally to technically minded people, that of seeking the truth. What were the facts? Did Tony's name actually belong on the report? How much did he contribute? Was his work in fact shoddy? Is there some set of rules by which these facts could have been ascertained and weighted? These are all relevant questions, but I suspect that answering them would not have solved Ralph's problem. The real problem was that Ralph had not recognized and addressed the interpersonal conflict that blew up in his face. If Ralph suspected some animosity between Tony and the others, he needed to address it. Ralph explained why did he not address the problem earlier:

"I noticed some discomfort among these people, but I had never had any trouble with Tony, and I couldn't see why Richard and Teresa objected to what he was doing. Richard and Teresa never said anything critical of Tony's work in our group meetings, and frankly, I thought that there was some personal reason that they didn't like him."

The result was that the report was filed too late to have an impact on the court case, Richard was disciplined and eventually left the agency, and the entire group, especially Ralph, was viewed as incapable of meeting deadlines. Everyone lost.

What would have happened if Ralph was aware of his tendency to avoid and ignore conflict? He might have made a special effort to be on the alert for signs of animosity in his group, if only because he knew that he often missed the cues. In this case, he might have noticed that there was a problem, tried to determine what was bothering Richard and Teresa, and done something about it. Perhaps they had misinterpreted something Tony had said or done. Perhaps Ralph would have discovered that Tony's work really was shoddy. What if Richard and Teresa had been able to separate their personal animosity toward Tony from their professional concerns and discussed these concerns with Ralph? What if Richard had been able to control his temper and enumerated his objections in a way that Ralph could understand?

If even one of the participants had had more insight, self-awareness, or ability to handle conflict, the outcome would have been different for everyone. Even a single individual with good self-awareness and interpersonal skills can have a profound impact on how a group functions. It is easy to focus on Ralph as the one responsible for the debacle. If Ralph had been more attuned to the interactions of his team, and if he had confronted them with observations that team interactions were deteriorating, this incident might never have happened. However, Ralph is not solely to blame. Each of the others had responsibility for their own role and inability to deal with the conflict.

If you are not a government employee, before you start feeling smug about the ineptitude of narrow-minded civil servants, try this experiment. Reread the above case study and change the participants from a team of EPA analysts to a team of engineers in dispute over the design of a Mars rover, a group of middle managers developing a plan for a new business unit, or a group from any technical discipline in which you work entrusted with reaching a goal. My guess is that you will find a lot that feels familiar in the example regardless of the type of work you do.

The right words

Because finding the right words to say in a conflictual situation is so difficult, we offer below some specific suggestions. Notice in these examples that we are following the

advice of Chapter 3 to focus the discussion on the problem and its consequences, rather than on what the other person did or said.

The following suggestions are framed in the context of a conversation with another team member or colleague about something that you see as a potential conflict.

1. Start your sentence with “We have a problem.” Starting with “we” immediately frames the problem as being shared, not the fault of one person.
2. State the problem, being as concrete as possible. For example, “We aren’t communicating effectively. There seems to be confusion and misunderstanding about what I expect and what you think I expect.” Then fill in the specifics of the situation.
3. Focus your comments on how the problem impacts shared objectives. This depersonalizes the difficulty, making it easier for the other person to take what you say as constructive criticism.
4. Make sure that you both understand what the other is saying. Ask if anything you said is unclear, and repeat what you heard to confirm that you understand what they said (“I want to make sure that I understand your point of view. Here is what I am hearing...”). Ask the other person their version of the problem. Ask for clarification frequently (“What do you mean by...?”). Spend as much time as needed explaining or asking questions until you are sure that you are both discussing the same problem. If you skip this step and move to solutions too quickly, you may each be solving different problems.
5. Often this process itself leads to solutions. At this point, you are not pushing for them, but they may just begin to present themselves. Defining the problem illuminates things that may not have been visible before. As the solutions come, write them down, but do not evaluate them at this point.
6. Try generating solutions to the problem. Start by focusing on yourself and what you can do to improve the situation. Then ask what the other person can do. If she does not suggest anything, offer suggestions yourself. Keep the focus on solving the problem and improving the situation, not on changing the other person.
7. Continue to exercise your self-awareness and communication skills during the process.

Let us apply these guidelines to five of the examples cited at the beginning of the preceding section.

Example 1

Your technician consistently has difficulty with crucial experiments, keeps undecipherable notes, or routinely misses one or more days of work each week. You compensate by double-checking his protocols, having him e-mail his raw data so that you can analyze it, and rescheduling experiments because he is absent. What you do not do is address the problem with the technician.

Start by making a list of several specific instances of the behavior in question. Frame

the list in terms of how it has affected the work, the project, or the lab. A hypothetical conversation follows:

You: “Jim, I’m having this conversation with you because your work isn’t as good as it could be. I’ve noticed that your attention to detail and your attendance have declined recently but I know that you can do better. Is there anything affecting your work that I should know about? Last week you forgot to add buffer to half of the sample tubes, and the week before you left the samples incubating twice as long as needed. As you know, we had to repeat those experiments, and they’re costly.”

Jim: “I just think that all of the scut work gets dumped on me.”

You: “Jim, what you do is every bit as important to me as anyone else’s work. What I’d like is to find a way to help you do it better. Let’s go over several areas where we need to work on improving your performance. I’ll help you with this as much as you need because I value your work. Let’s start with attention to detail. During the next month, we’ll have a number of critical experiments in which you will have a crucial role. I’d like to set a goal for no experimental errors during the next several months. Can you commit to that?”

During the next month, Jim’s performance does not improve. In fact, it deteriorates. You do not ignore the problem. You call him into your office and have the following conversation with him.

You: “Jim, I’d like to review your performance during the past month with you. Specifically, we need to talk about your absentee rate and your attention to detail in experiments 34 and 35. These are the same issues that we’ve been working on for the past month. Are you having any problems that might be impacting your work? If not, I need to tell you that if these areas don’t improve during the next month, we’ll have to discuss whether this is the right job for you. Can we go over the specifics now and try to figure out the problem?”

Example 2

One member of your group consistently complains about the lab, other people, and every piece of equipment that she uses. She also finds fault with every lab policy and voices these complaints to anyone who will listen. People in your group complain that her negative attitude is getting on everyone’s nerves. Your response is that her complaints are harmless and should be ignored.

You: “Melanie, do you have some problems in the way the lab is running that you’d like to discuss with me now?”

Melanie: “I don’t have any problems. What do you mean?”

You: “I know that you’ve expressed dissatisfaction with the way people are assigned to maintain equipment, as well as the allocation of travel funds. You may have some legitimate concerns, but I can’t deal with them unless you talk directly to me. I’d like your commitment that the next time you find something that can be improved in the lab, you’ll come directly to me. I promise that I will listen carefully to what you have to say.”

Example 3

A new member of your lab has personal hygiene habits that others find uncomfortable and distracting. He bathes infrequently, which makes working near him unpleasant. When a lab member complains about this to you, you are sympathetic, but find it impossible to imagine how you can broach the topic. The person becomes a pariah in the lab and wonders why no one talks to him. His work, and yours, suffers because no one gives him the advice or assistance that he needs.

You: “Alan, this is an awkward conversation for me to have with you, but I think that you’ll be thankful that we spoke when we’re done. Everyone has different personal habits, and for the most part, these are their own business. But once in a while those habits interfere with other people unintentionally. In your case, I’ve noticed that you don’t seem to wear a deodorant. Although that is your personal business, and there may even be a health reason, I need to mention this because, frankly, your “scent,” if I can call it that, really distracts me and, I suspect, others as well. Is this something of which you are aware?”

Alan: “No one ever mentioned that to me. I don’t wear deodorant because it seems unnatural. People should smell like people, not perfume counters.”

You: “I respect your view. But in this case, we also need to consider that you work in close proximity to others who probably find it hard to share the lab with you. I don’t think that this is healthy for the lab and it’s not great for your relations with the lab members. Do you have any thoughts about what we could do?”

Alan: “Well, I guess I could shower every day before I come to work.”

You: “Terrific. Please try that and let’s see how it works out.”

Example 4

One of your technicians talks on her cell phone using a head set while doing experiments. She speaks in a loud voice that you can hear all the way into your office across the hall. Although no one mentions this to you, you suspect that others in the lab are finding it hard to concentrate. But you decide to ignore it until someone complains.

You: “Natasha, I don’t know if you’re aware of this, but I can hear you on your cell phone all the way into my office. I suspect that others in the lab may be bothered by this, although no one has said anything to me about it. In the past, I have asked people in the lab not to play music that others can hear and to keep their personal phone calls to a minimum. Is there some particular reason that you need to talk on the phone while you work? Are you dealing with any problems?”

Natasha: “No, there’s no problem. I just think that it saves time to talk and work at the same time. That way, I don’t have to take time away from my work.”

You: “Well, I wish everyone were as concerned about maximizing their time at the bench! Nonetheless, although your talking this way may enhance your productivity, I fear that it will decrease others’, including mine. I don’t like to make rigid rules for the lab, but I’m going to ask you to restrict your cell phone conversations to the lunch room.

I'll make sure everyone on the team knows about this new rule, and in a few weeks we can discuss how you are doing."

Example 5

Sandrine, a female employee in your group, has a hard time getting her point across in meetings because she is soft-spoken and considered in her speech and gets routinely interrupted by several loud males. You observe this, but decide to do nothing, figuring that she needs to learn how to roll up her sleeves and jump into the fray if she is going to succeed.

Here, you have the option of either telling the interrupters to pipe down or helping Sandrine to become more insistent on getting air time. You may decide on a bit of both:

You: "Sandrine, I've noticed that you often have a hard time getting a word in at team meetings. I wonder why you don't stand up to Fred when he interrupts you."

Sandrine: "I just don't like to argue with him. He just keeps talking louder and louder. I prefer to just keep quiet until he calms down."

You: "If you're willing, I'd like to help you learn to assert yourself a bit more in those situations. It's important for both the lab and you that you get the opportunity to express your views in our meetings. You know a lot about what we are working on and the other team members need your input. Are you willing to try?"

Sandrine: "Sure, I'll try anything that may help."

You: "The next time that you are interrupted, try saying, 'Excuse me, I haven't finished.' If Fred or others interrupt again, say, 'You'll get a chance to respond as soon as I finish' or 'I'd like to hear what you have to say, Fred, as soon as I'm finished.' You might say, 'If you keep interrupting, it's just going to take me longer to get to my point.' If you do this consistently, Fred will get the point. Be patient and don't attack or insult him; keep focused on saying what you have to say. Are you comfortable with these suggestions?"

Sandrine: "Yes, they sound great. Thanks."

You can also send clear messages to your group that suggest that although lively discussion is important and stimulating, rude interruptions are inappropriate. In the long term, your own behavior provides a model. If you interrupt while others are speaking, or shout over them when they are talking, your group will likely feel free to do the same.

Example 6

A female employee complains to you that Juan, a male co-worker, is viewing pornographic images on his laptop in the conference room. You are at a loss about how to broach the subject to him, so you do nothing.

You know that you cannot ignore this problem, but no matter how hard you think about it, you cannot find a way to approach Juan about this accusation. You decide to seek the advice of Harriet, a friend in the human resources department. In a series of meetings, Harriet explains the institution's policy on the use of computers at work and you draft a more specific policy about personal use of computers in the

lab. After you announce the new policy to your lab, you hear no further complaints about Juan.

The key in this case was in seeking help from a friend in human resources. If you do not have a friend in human resources, make one. One of the most important tasks of a human resources professional is to help managers find solutions to employee-related problems.

The preceding tools and concepts should help you to recognize and deal with some of the issues that science teams face. We have emphasized how self-awareness on the part of the leader can help you to sense difficulties that both you and your team may be experiencing. We also introduced the notion that both team leaders and members must be comfortable dealing with conflict, which is inevitable in teams. When conflict goes unrecognized and unaddressed, the best-case result is lost opportunity, and the worst case is project derailment or failure.

Technical turf wars

The following hypothetical case study involves a conflict that was both overt and destructive to the team and its progress. Despite being readily apparent, the conflict was handled poorly by all involved. In the sections that follow, we use this case to illustrate and address other problems in managing teams of scientists.

▶▶ Case Study: Technical Turf Wars

One of my jobs in the semiconductor industry thrust me into the middle of a multimillion dollar collaboration between my small research company, Monotech, and a high-profile electronics company, which I will call BigTech. On my first day, I was sent to observe one of the weekly project review meetings attended by teams from both companies. I felt a sense of eager anticipation. The meeting was in one of BigTech's elegant conference rooms with a commanding view of an urban river. As I settled into a seat that had more levers, buttons, and adjustments than I had ever seen on a chair, I had a great view of sailboats taking advantage of the last good days of fall. My enjoyment evaporated quickly: Almost as soon as the meeting started, everyone on my company's team, including Andrew, the project manager, started shouting. It was a scientific free-for-all and the invective was almost unbelievably intense and hostile. I actually felt nauseous. I kept thinking that I was watching a train wreck in progress. In my role as vice president of Monotech, I was ultimately responsible for this impending disaster—and I had just started work that day. What had I gotten myself into? How had this project deteriorated to this point?

Andrew was an experienced individual with a Ph.D. in electrical engineering who had been specifically recruited to manage the collaborative project with BigTech. On paper, his background and experience suggested that he was well suited to managing this project. Moreover, the project was actually very promising and could result in a very profitable product. But the project was moving very slowly because of technical problems.

The agreement between Monotech and BigTech required that our senior project scientists meet once every week to review progress. These meetings (and the one that I had seen that first day was the rule, not the exception) were like rugby matches with players from both sides having a scientific brawl in the mud. Having worked in science for almost twenty-five years, I was used to a certain amount of hostile posturing by aggressive scientists. What I was not prepared for was that much of the mud slinging and invective was among members of my own team! As if this were not disconcerting enough, even Andrew himself lost his cool more than once, and routinely turned red with annoyance at his colleagues.

Back at MonoTech, Andrew complained about his team to anyone who would listen, especially about the fact that members of his team rarely listened to him—even though he was the manager. It did not take me long to see a multitude of causes for this disastrous situation. First, the scientists felt that they were the experts in this particular area, not Andrew. Andrew therefore had no scientific credibility with them. On several occasions, Andrew had presented Monotech's data to the joint project team; this made the scientists furious.

Second, Monotech's internal project team meetings invariably degenerated into accusations of incompetence or worse. During these meetings, Andrew himself became furious and lost his capacity to continue with the discussion. More than one meeting ended with a crimson-faced Andrew ready to explode and a smug group of scientists congratulating each other for so effectively pushing his buttons.

Neither Andrew nor the scientists had the skills to resolve the conflict within which they found themselves. I suspected that the scientists were using Andrew to vent their frustrations with a technically difficult project. For his part, Andrew could not see that by losing his temper, he was just exacerbating the situation. Monotech was also responsible: They had made Andrew project manager because he had a history of managing big projects in other companies, but what they failed to predict was that his limited scientific background in the specific area of the project would be a red flag to the headstrong scientists, who had already burned out two previous managers. Andrew's limited self-awareness, self-control, and people skills simply fueled the flames.

To make matters worse, Monotech badly needed this project and the associated funding that BigTech provided. Everyone knew this, and they also knew that the project was not going terribly well. Yet Monotech's senior managers never openly discussed with the scientists the consequences if the project were cancelled. As a result, there was considerable anxiety, uncertainty, and wild speculation among the scientific staff. The outcome was a disaster with multiple causative factors. Not long after I joined the company, BigTech cancelled the project.

This case study illustrates a series of errors in managing science teams—some of commission and some of omission. Andrew is not the only one who contributed to the problem; each of the participants as well as the senior managers of the company had a role. Some of the problems in this case include the following:

- Management failed to recognize that this group needed a project manager with scientific credibility who would be immune to the hostilities of the group.
- Andrew lacked self-awareness and self-control. This made it impossible for him to weather challenges to his authority and keep the group focused on task.
- The team had a propensity for channeling their frustration into hostility toward one another. Management never intervened to stop this.
- Andrew usurped the scientists' data during project presentations, cheating them of the opportunity to get credit for their own accomplishments.
- Management failed to be open with the scientists about the status of the collaboration, and what might happen if it were to be terminated.

How can disasters like the Monotech case be avoided? In the following sections we review the causes and consequences of the team-based problems we identified in the Monotech case. Building on the information we presented in Chapter 1 regarding psychological characteristics of scientists, as well as our suggestions for improving self-awareness in Chapter 2, we show how you can minimize the chances of these and other common problems from derailing your team.