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## Examples of Routine Problems and Decisions Faced by Technical Leaders

If you have an engineering or science degree(s), you have been trained to apply fundamental principles to solve problems and make decisions based on carefully generated data, calculations, and their interpretation. As you have no doubt learned by this stage in your life and career, people are not data, nor do they **appear** to function in a well-defined and idealized manner. During your formal education, you have seen a number of openended technical problems. But, these problems have not incorporated the most diverse situations that you will encounter in your technical career: Those that involve beliefs, values, biases, and emotions of individuals. Such issues are generally far more difficult to resolve due to the personal nature and sometimes seeming unpredictability of the people involved.

Before launching into a discussion of technical leadership fundamentals and the unique viewpoints and characteristics that technically trained individuals bring to leadership positions, it will be helpful to consider a few of the routine or day-to-day "sensitive" issues that many leaders face when they are responsible for group members' actions, productivity, and accomplishments. Ways to think about and approach such undefined "people" problems are presented for five cases in this brief chapter. These cases offer examples that can serve as an orientation to other situations common to technical leadership that are introduced throughout the book. You will gain the most insight and understanding from this chapter if you take a few minutes to think carefully about how you might handle each vignette posed prior to reading "the answer." I state this as "the answer" because all answers offered are ambiguous and have multiple possible paths to follow. The context within which a leader must function for a specific issue typically determines the most appropriate approach. In fact, the same leadership dilemma may have a different "best approach" when the team or organization changes due to the variation of people, circumstances, culture, and deadlines associated with each team or organization. This is a common characteristic of nearly all leadership situations and decisions, which frequently results in frustration for early career leaders. You will find that most approaches suggested involve asking questions to lead the individual with whom the leader is dealing (or even the leader) through a process that helps them recognize their assumptions/actions/behavior/consequences. This "questioning" approach to leadership promotes interdependence among team members and ensures that everyone feels part of the approaches developed and decision-making process; further details describing characteristics of a questioning team culture along with approaches to establish and promote this type of culture are offered in Chapter 7. After considering the examples below, you will better appreciate the reasons for the ranking of attributes that employers seek on a candidate's resume [1]. In order, the top five attributes in 2016 were leadership, ability to work in a team, written communication skills, problem-solving skills, and verbal communication skills.

- 1) As a result of a team leader retirement, you have been given your first leadership/managerial position for a group of engineers and scientists who have been working together successfully and productively for more than 10 years. During the first few months of this new assignment, the attitude of a number of the team members appears to be one of distrust for you and your leadership style. It is apparent that the previous smooth-running operation is degrading and you have been asked by your boss if there is a problem. How do you respond to your boss and how do you deal with the difficult interactions with your team members?
- 2) As a result of your efforts to address issues within your new team, the team members have once again begun functioning effectively and efficiently. Due to a mistake in assessing the number of new technical personnel needed, an additional engineer was hired and has been assigned to your team. Sean is a very impressive new graduate from a highly ranked school. However, you quickly observe that whenever Sean asks a question or offers a dissenting opinion in team meetings, his remarks elicit demeaning and sometimes rude comments from several of the members. The normally collegial group seems to be polarizing into two segments as a result of this behavior. How do you regain group collegiality and professionalism?
- 3) Each month your team members are required to present 5-min synopses of their recent accomplishments and outline their plans for the next month, paying particular attention to current or anticipated concerns. This allows feedback and constructive criticism of the directions taken and the results obtained. Beatrice gives very detailed informative

- presentations, but the presentation always runs more than 10 min. A number of team members are annoyed by this behavior because, as a result, the meetings run late and more importantly, they feel that Beatrice is receiving more than her fair share of attention, opportunity, and recognition. How can you resolve this issue?
- 4) As a recently hired employee, you attend team meetings and participate in the discussion and evaluation of results generated by different team members. On one occasion, one of the highly respected senior team members justifies his opinion on a discussion topic by stating a "fact" that is clearly technically incorrect. How do you as one of the most recent additions to the organization, address this issue?
- 5) A senior scientist with an international reputation and high visibility always arrives 10–15 min after your regularly scheduled team meeting has begun. In addition, this person typically spends most of the meeting time checking and responding to email. This behavior disrupts the meeting and morale is suffering because other team members have individually told you that they feel this person is arrogant, not engaged, and receives special treatment. How do you as the team leader, handle this situation?

## 1.1 Possible Approaches to Deal with Representative Leadership Dilemmas

The following discussions and possible approaches to dealing with the dilemmas posed above are the result of many years of experience (and mistakes made) by the author. My perspective on these representative issues has arisen from a large number of sources: Personal experience in a variety of professional positions; discussions with colleagues regarding their trials and tribulations as leaders; concerns expressed by students or former students who have encountered unexpected behavior from others while performing their professional duties; observations of other leaders' experiences; and reading accounts of problems that made headlines in industry, academia, national laboratories, and personal interactions. As noted previously, there are no "correct" answers to such situations, but various approaches can be considered; the optimum approach depends upon the specific people, organization, and time available for resolution.

1) First leadership assignment after previous leader retirement: First, an unbiased assessment of your leadership style and current team directions is needed. A detailed (soul searched) self-evaluation regarding how you began this team leadership effort and whether you gave the impression that you were going to, or in fact, did immediately

implement changes in culture, priorities, or rewards should be performed. In addition, you should request impressions and pose questions concerning your attitude and actions as you began this position from a trusted mentor or someone else outside the team. If you feel that one of the team members would be willing speak with you frankly one-on-one and address your questions so that you can gain insight into the impressions you have given the group, this will be very useful. You also need to determine if your behavior during team or individual meetings would have given the impression that you were closed to considering alternative ways of viewing the tasks your team undertakes and/or have taken a dictatorial approach to leading. You should also consider the possibility that some (or all) members of the team are resistant to change (even if it is for the better) and they have not yet decided if they can trust you or if you have established credibility with them. An additional possibility is that one or more of the team members felt that they should have been selected as group leader; rather, an individual outside the team (you) was selected. With this information in hand, you can decide if you have caused the dysfunction within the team by your actions, if you have not yet proved that you deserve their trust, or if one or more members feel slighted by your appointment. This conclusion will allow you to plan how to proceed. If you have caused the dysfunction, then you need to apologize to the team and indicate how you will rectify the situation. If you have not yet established trust, then you will have to show by your actions both who you are and that you are true to the value/belief system you claim to embrace; this may take some time, so patience is a virtue. If you were selected for the position when others feel that they were more qualified or appropriate, then you will need to prove by your actions and attitude that you are qualified and are a team player in all that you do. You should share your thoughts about what you believe is the problem with your boss and indicate how you will approach a resolution. You will then receive additional input and suggestions from him/her to be factored into how you proceed.

2) Sean difficulties: Since there are some team members who appear to interact well with Sean (at least one segment of the team behaves professionally), you should speak with one or more of them to obtain their evaluation of what is taking place in team meetings and why. As the leader, you need to assess from your own observation of behavior whether Sean is giving the impression that he is condescending with his questions/remarks. This may be due to his tone of voice, body language, or attitude. In such cases, you need to speak with Sean one-on-one to let him know how he is coming across to the team and ask questions that lead him into ways in which he might display more

appropriate behavior. You can then also suggest conduct wherein he can be viewed as more collegial and flexible. Of course, this assumes that he is not aware of the impression he is giving. If he is simply arrogant, then you need to indicate what effect he is having on the morale and collegiality and why it is important for him to develop positive interactions with other team members, to ensure productivity and thus meet team goals/vision. You should monitor his progress to confirm that he is committed to change and that his efforts are effective. If he is not willing to work toward that goal, then you may need to inform him that you will not tolerate such behavior within your team; consequences need to be stated in this case. If neither you nor other team members perceive problems with Sean's behavior, then you need to discuss the response that is occurring with the team member (or members) who appears to be the primary proponent of deriding Sean. Ask why this type of response has arisen and what he/she intends to accomplish by such behavior. Provided that the response is deemed truthful, this will allow an assessment of the concern eliciting inappropriate conduct and the development of a plan to address these issues. One or both parties may need behavior modification and this will require that they are motivated to change and willing to chart a plan to correct their actions. When all parties are aware that you are making a sincere effort to reconcile the differences, you may get assistance from others to improve the situation. That is, if peer pressure can be brought to bear to alter behavior, this may help resolve the problem.

3) Beatrice presentations: In a one-on-one meeting, the leader should ask Beatrice why she plans a presentation that is twice the allotted time. If she thinks that the presentation is only 5 min in length, or she does not know how to reduce the length and still present the important results, then her presentation skills need refining and likely your assistance and guidance. If she shows an "attitude" about this, i.e. my work is so significant that I deserve to take more time, then she needs to know the effect her behavior is having on team dynamics and that personal advertisement and kudos is not the purpose of this particular meeting. After this discussion the leader needs to keep track of how the next few presentations go; she may need a reminder and some stated consequences if the situation does not improve. An alternative way of handling this after your discussion is to schedule her presentation last, and when the time for the meeting has expired, the team is dismissed or individuals can leave if they need to do so. Of course, this will only work if all other presenters stay on time. If this type of approach allows Beatrice to continue functioning in a way that is disrespectful to other group members, then this is probably not the way

- to proceed. However, you may need to try this tact to observe how the plan plays out. If other team members "tune out" when Beatrice begins speaking because they interpret your change in schedule for her presentations to indicate minimal importance of her efforts, then they are acting unprofessional and/or rude which may require clarification for your actions and/or intervention by you.
- 4) Senior group member technically incorrect: The most diplomatic way to handle this is to wait until after the meeting is over and then go to the senior group member's office and ask for clarification. This oneon-one discussion will allow the person to save face within his peer group and hopefully defuse defensive postures. Tell the person that you could not follow their logic and explanation and ask them to help you understand. With any luck, they will see their mistake. If you are not that lucky, then you need to keep asking questions regarding the details of what the senior person is saying to lead them through their misconception or false logic. If a decision is being made at the meeting where the incorrect information is offered, and the decision will change based on this false information, then you should approach the situation in a similar way at that time; this must be done carefully. That is, begin asking questions for clarification that leads the person through the false logic or incorrect "facts" so that they have the opportunity to correct themselves. This is the least threatening way to proceed in order to reduce the likelihood that egos will take over the discussion and eliminate productivity. If the senior individual remains insistent that they are correct either at your individual meeting or the team meeting, then you should point out the facts clearly with detailed justification via previous studies/references. If the incorrect "facts" will have no bearing on anything that the group is doing, it is possible that they may be ignored. However, having incorrect information entered into team members' memory or minutes to the meeting could be problematic at a later time, so it is best to correct this situation.
- 5) Senior scientist late arrival: Since this is chronic behavior, you need to have a one-on-one discussion with the senior scientist where you ask the reason for the constant late arrival at a regularly scheduled meeting. You should point out the effect that this has on the morale and effectiveness of the meetings and the message this sends to younger team (and more experienced) members. You should also ask why this individual feels compelled to spend the meeting time working on email. Point out that it is imperative for maximum productivity toward reaching the goals set that everyone contribute to the results and directions being discussed. You could also indicate that this person's extensive experience is greatly needed to reach viable conclusions and make decisions (i.e. appeal to his/her ego). Questions regarding why

there is an apparent lack of interest in the meeting content and discussion should be posed. Of course, there is no guarantee that this person will "see the light" and change their late arrival practice or stop giving the impression that this is a waste of time. If the behavior is annoying, but there are major contributions to the meeting by the senior scientist, you may wish to play down or ignore this conduct. If this is the approach you choose, you should speak with the team members who have complained to you to let them know where you stand on this issue and encourage them to not be put off by this behavior but to recognize how important the contributions are to the organization. If the senior scientist behavior is sufficiently disruptive that the attitude is poisoning the entire group, then you have a difficult decision to make. The question (but not the answer) is simple: Is the team and/or organization better with or without this individual? These are the types of decisions that an effective leader is expected and paid to make and requires great fortitude and a commitment to do the right thing for their team and organization.

## Reference

1 Job outlook 2016. Attributes employers want to see on new college graduates' resumes, National Association of Colleges and Employers.