Dear Doc: advice for collaborators

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ABSTRACT

Years ago, when Doc was a junior faculty member she became aware of a situation that changed her life. An extremely well-known senior scientist in her department took the data of a graduate student and published it in a very significant, oft-cited paper without crediting the student in any way. That this action had the tacit approval of the department chair was confusing. Dismayed by this violation of trust and feeling powerless to intervene, she decided to become the Dear Abby of Science. Working in the lab during the day she was becoming a world-renowned researcher as well as a highly revered mentor to younger scientists. At night, disguised as Dr. Doc she began advising other researchers who were looking for help with their sticky situations. As word of mouth spread about Doc more and more researchers sought out her advice about a wide range of problems in their labs and in their collaborations. She is currently entertaining a proposal from a collaborative group of editors from high-impact journals to develop a web presence that would offer insightful advice to struggling scientific collaborators around the world. The following is a selection of letters from Doc's files focused on collaboration. The names and details in the letters have been changed to protect confidentiality.

KEYWORDS

Collaboration, Team science, Trust, Vision, Expectations, Collaborative agreement, Pretense agreement, Managing conflict, Promoting disagreement, Diversity, Power

Dear Doc,

I got involved with another person on a research project about a year ago. We worked together on the experiments, have had great conversations about results, and have even talked about next steps. Everything seemed so great; we really were getting along and seemed to really understand each other. Then, without any warning she sends me a draft of a paper, with her name last and one of her postdocs as first author and says she'd like my review quickly because she wants it submitted in time to be considered for her upcoming review. I went to her office to talk about it, but the conversation turned into a big argument. I don't want to lose this special relationship that has so much promise and at the same time I am really

Implications

Researchers: Attending to trust, vision and setting expectations will enable a collaborative team to focus more on the science and less on conflict

Practitioners: Establishing collaborative and pre-tenure agreements provides a scaffold for interpersonal and organizational trust

Policymakers: Institutional messages and communications must align with review and reward structure

ticked off and feel totally betrayed by her. I cannot figure out what went wrong. Even worse, I'm not sure what to do next. Do I try to salvage what we had together? Do I just forget this and move on?

–Dazed and Confused

Dear Dazed and Confused,

Perhaps the only thing sadder than failed love is a betrayed scientific collaboration. You have two possibilities here. If the current conflict is merely the result of failed communications at the start as well as during the collaboration then maybe you can try again. Think back—did the two of you discuss how and by what criteria you would make decisions about authorship and publication before you started working together? And if you did, did you write it down? If you didn't but you still want to collaborate with the other person you must discuss the essential elements of the collaboration and to agree on how to make decisions, how authorship will be decided, how data will be shared, who talks to the media, and anything else before getting on to the actual work [1, 2].

Your colleague also had a bad experience here (you said you two had a big argument), so she may want to avoid a repeat of the same problem you just went through. If she will not do this then I would certainly think more than twice about continuing to work with her. But if she agrees, then both of you might be on the path toward a quite fruitful and compatible working relationship.

Conflict like this does not originate only from personal dynamics; institutions also play a role. Consider working with your department or institutional leadership to develop an approach to educate and provide training to build skills for collaborating successfully. You could create an active training effort to support collaborative work and

reduce the chances of these types of situations occurring. Just imagine, it would help create a culture where the norm is to discuss how work with others will be executed, expectations set, and roles defined.

However, if you have been traumatized by this experience, if you are fundamentally distrustful of her, do not believe she will honor her word even if you did have a written agreement, or if you believe she is one of those scientists who is so competitive that they can never be counted on to consider what someone else's interests might be, then you are better off walking away and counting this as a (painful) learning experience.

Dear Doc,

I am a postdoc working on a project team composed of basic scientists, clinical researchers, epidemiologists, a biophysicist and some others. A very (very) prominent MD heads our project team and the Professor I work for is among the major players for the effort. I have written an abstract on the component of the effort that was initially headed by my supervisor, but for which I have been given more and more responsibility to lead. This effort is definitely grounded in the mechanistic biology of the overall project. I want to submit it to a meeting that is largely translational/clinical in nature. I can see clearly how presenting this at such a meeting may help me get additional perspective by meeting and talking to physician-scientists on how to approach our challenge, which really relies on a broad perspective. Problem is that while I have the support of my supervisor, I don't have the support of the team lead, who thinks I should stick to going to basic science meetings and has declined to fund my travel. I think going to a more translationally focused meeting is important for my career, especially as it related to engaging in dialogue with people on the clinical side. My supervisor does not want to rock the boat and if I'm the one to make waves, the team lead could easily torpedo my career. I am struggling with what to do. Do I sit back and accept this situation and listen to the team lead? Or do I fight this? And if I fight, how do I do it without risking my future?

—Power Play

Dear Power Play,

I hear about these situations often. And while it is easy to outline principles or theory around having really difficult conversations, it is much more challenging to actually engage in them, especially when there is a power imbalance, as you have here. Clearly you are not in a healthy team environment. Your supervisor does not want to engage or “rock the boat”, a discussion with the team lead is framed as a “fight” and you fear a discussion could jeopardize your future. It is not hard to read between the lines of this letter. First, your environment does not support healthy conflict. Clearly, a foundation of trust has not been established for the team and trust is critical for healthy team functioning [3, 4]. Your supervisor could be conflict adverse [5], which would mean that you have not been mentored in how to have a difficult conversation with someone else, let alone someone with greater positional

power. Open discussion about scientific and career development issues does not seem to be occurring, and you are now caught up in that dynamic.

If it is important to you not only to submit the abstract, but also to accept an invitation to present your work then you need to prepare for a conversation with the team lead. You must prepare carefully. Be clear on why you want to have the conversation and what you want to accomplish. Plan to keep the focus on the future as opposed to what has already happened (which can come across as blaming). When you start the conversation be clear about your purpose, describe the current status of the situation from the perspective of the mismatch between your perspective and the team leader's and weave both into the discussion. Be sure to learn more about the team leader's perspective on this meeting. Try to understand why the team lead believes this meeting is not a good opportunity for you. Then explain exactly what you hope to gain from the meeting. For example, if you have not yet learned a “clinical” language yet, a meeting like this would help you. Emphasize that it is more and more critical for interdisciplinary team members to learn each other's disciplinary languages. This is true for creating any “product” from the joint effort of many individuals representing an array of expertise. For the team to truly hit high levels of integration and interaction they must be able to communicate across languages in order to co-create a vision with associated goals.

Finally, ask if there are other activities you can explore to gain similar experiences. Invite the team lead to help you sort out how to gain better interactions and dialogue with clinicians. Are there options neither of you have considered that could get you where you want to be with respect to your goals for your component of the project, the broader effort, and your career trajectory?

Keep in mind that power comes from many places. While the team lead may have power of position and reputation, your position on the team suggests you have the power of knowledge and expertise. Other forms of power include connectivity to other people and resources, strong work ethic, and record of accomplishment [6, 7]. Think about the sources of power from which you draw—not because you want a show-down, but to gain some additional perspective of where you fit and what you bring to the team as a whole.

If it is any consolation, conversations like these are extremely challenging to have. It gets easier over time, and you just need to start practicing. The more you practice, the better you will get. A final word, if you ever believe that having someone help facilitate a conversation would be useful, that can be a very positive approach to take. Some institutions have ombudsman offices with people skilled at helping in situations like this. If not, a well-respected mentor could also be asked to help.

Dear Doc,

For the past few years I have been working with a group of biomedical researchers in a new research building. We were “co-located” after our institute leaders decided they could get people to collaborate

across disciplines by grouping us with people from different areas of expertise. We were willing to give it a try and at first we did find some common problems to work on and dutifully formed some collaborations here and there—but, over time, our interests diverged and, although we get along, we are not the cohesive integrated team they hoped we would be. Our directors want us to recreate that earlier success and build on it, but we just don't see the point of trying to force something. Being in the same building has brought us together socially—we get along well enough and we even share reagents and some of the other resources. But recently, we are being reminded that we were carefully selected to be in the new facility and that they expect more from us. We met with our leadership to ask for direction about the sorts of projects they wanted us to pursue but they replied that it was up to us to decide.

—Weakly Bonded

Dear Weakly Bonded

I've never been a fan of arranged marriages, shotgun weddings, or forced collaborations. The desire to please one's parents or bosses is rarely the basis for a successful enterprise. Also, I wonder if the appeal of a new facility led you and your colleagues to overestimate the likelihood of this arrangement working out or whether you really understood what the leadership hoped for. It's hard to turn down the opportunity to move into a brand new, state of the art research facility. And while there are reports of marriages staying together for the sake of shared wealth, science is really more romantic than marriage.

Almost always, successful collaborations begin with and build on shared excitement about a scientific idea and related researchable problems [8, 9]. You don't hear much about researchers who want to collaborate just for the joy of working collaboratively whether it is because they get along, because their building was meant to facilitate collaborative work, or because they have been told to do so. If you and your colleagues can summon up the courage to give it one last try before throwing in the towel, there are a few strategies you can use to revive the earlier successes you mentioned. Set up a few meetings and invite people from the outside working in exciting areas to participate, talk to a few scientists way outside your discipline about major problems of common interest and see if some sparks are generated, and/or bring in a few interns or volunteers to work between labs on a project that has not yet taken form. And, if you all choose to sit back and not make the effort, then maybe it's time to start packing.

Dear Doc,

I've started getting involved in a scientific collaboration. I'm not sure if I should be doing this since I have my own work I should be focusing on. I'm also coming up for review, so there is extra pressure. This new group of people has stimulating conversations and the research question is bold and exciting. It's actually a lot of fun and I get totally lost in the moment. But then the

guilt jolts me back to earth. I should be working on my other projects. What should I do?

—Torn in 2

Dear Torn,

So, you are feeling guilty because you are having fun. Does this strike a chord? You need to decide if it is okay for you to love what you are doing in a collaborative way. If the answer is yes—you must follow your passions. Scientific research is not built around monogamy.

Here are some questions for you: what part of the collaboration excites you? Is the scientific question truly novel? Will a solution have impact in the field? Is the work being done of high quality? How can you carve out a leadership role in the context of the overall collaboration? From where can you recruit other team members to help you?

Answer these questions and you will have the start of a plan you can use to chart your scientific path forward (i.e., research plan). Taking this approach should also help you prepare for a review by: naming and outlining your accomplishments, describing a new scientific question that needs to be answered, making a case for why a collaborative approach is essential, clearly defining what aspect you will be leading, how you will be participating, your approach for getting the work done (staff and resources) and future directions.

You don't mention where you are in your career path—but if you need supervisory or departmental support—be sure to get something in writing outlining how you will be reviewed and rewarded for the effort [10]. Examples of written support include letters, email exchanges, or formal written agreements.

And then, please, go have fun.

Dear Doc,

I just realized that I might be stuck between a rock and a hard place. I am a TT investigator and came to this university not only because they recruited me heavily but because they said they really value interdisciplinary and cross-cutting team research—and I do a lot of that. I just saw my colleague get denied tenure for having too great an emphasis on team research and not enough independent work. By the way, he is amazing, his letters were great, and his publications and national/international invited speaking lists are notable. The committee apparently was unable to identify his individual contributions in the context of the teamwork (too many middle author papers compared to first/last). I am fearful I am heading for the same outcome since what I do is heavily collaborative. Do you have some suggestions for me?

—Catch 22

Dear Catch 22,

There are many universities struggling with this same situation. Institutional messages are not always aligned with the review and reward system. First, work with your department chair to craft a pre-tenure agreement between you and the institution, or if you have one already, dust it

off and update it [10]. The agreement should state explicitly how you will be reviewed and rewarded for the work you are doing. It can clearly outline how your individual contributions can be identified in the context of collaborative work. Start keeping a shadow c.v. in which each publication is annotated with your contributions to the overall effort as well as what the consequences would have been if you were not on the team. When your tenure letters are solicited from outside experts be sure information about your independent contributions in the field, in the context of your collaborative nature, is requested specifically. Letters should be requested from both collaborators and non-collaborators. Take a careful look at the tenure criteria at your university. It is more common these days to find sentences that say team science will be considered. However, it is also the case that committees have not been trained or educated about how to implement those criteria. Have an early conversation with the promotions and tenure chair to explain what you are doing and learn how they are doing business. And finally, use your network, talk to others in similar situations at other universities and see if they are implementing strategies that can help. The more we share this information and raise these concerns, the more likely the tide will turn. The "I'll know it when I see it" approach to evaluation is just the wrong approach.

Dear Doc,

I'm in my first month as Vice-Chancellor for Research at a University that desires to greatly expand its research activities and reputation. I have lots of ideas for interdisciplinary projects that will be in the best interest of the University. However, the culture here is still just as it was when the emphasis was on teaching—it is highly participatory, very suspicious of strong leadership, and almost phobic about projects initiated at my level. Any thoughts about how I can change the culture? By the way, I don't have lots of patience for process and worrying about group dynamics.

—Change Agent

Dear Change Agent,

I have lots of thoughts about how to proceed but you may need a bit of an attitude adjustment first. I understand your impatience with group dynamics but it is pretty hard to build successful interdisciplinary projects without paying attention to and mastering them. And given that you are new to the University, not to mention a member of its leadership team, you must earn the trust of your community before people will follow you. You need to step back and reflect on who you are as a leader and learn about your community before taking on the role of change agent at the University. You need to be clear about your strengths and weaknesses as a leader—you already know a couple, impatience and disinterest in group dynamics—I would suspect that one of your strengths is creating a vision [11].

You say you've been there less than a month and you want to change the culture. You are in dangerous territory if you want to lead change but have not spent time getting to know the community.

Hit the pavement and visit the people in your organization, learn about them and their interests, and talk to them about your vision and ideas. You must engage them before you try to change them. You may actually find a lot of allies who would be willing to work with you. Of course, this will require you to start developing some patience with group dynamics, not to mention your colleagues [12].

Dear Doc,

I have been part of a scientific team for over a year now and it has been great—we have an accomplished group of researchers and we are really tackling some fascinating difficult scientific challenges. We routinely share data and results and talk about the results and whether we are on the right track or if we need to do something different. However, I am beginning to have doubts about one of my colleagues—"Chris" and I am afraid he may be presenting some bad data at our lab meetings. I worry that this will compromise us all.

—Suspicious

Dear Suspicious,

Where did this worry come from? What did Chris do to raise your suspicions and lead you to question whether or not your colleague's data is accurate?

Dear Doc,

Over the last few months, Chris has dropped the ball on deadlines and left me holding the bag. Actually, it reminds me a lot of when my ex left me. All of a sudden I was left to manage the kids and the house on my own. Anyway, Chris and I were supposed to give a presentation and Chris did not get the data generated in time so I stayed at the lab until 4 a.m. finishing the experiments that needed to be done. I did not even receive a "thank-you" or an "I'm sorry"—in fact Chris acted as though nothing happened. And this behavior is getting worse, every time I turn around something is left undone and I need to take care of it. It is obvious to me that little to no care is being taken in generating the experimental data for our collaborative work. I am trying to decide if I should bring this issue to the team leaders and ask that they remove Chris from the team so we can get on with our work.

Dear Suspicious,

This sounds like one of those times where life imitates life. Maybe your past personal experiences are shaping how you are reacting to Chris. Now clearly you do have problem with Chris but it might not be what you mentioned in your first note. You started by questioning the accuracy of Chris's data but your account of the problem indicates that Chris has become unreliable—not getting work done, missing deadlines, etc. I am seeing two related but distinct things happening here.

First—there is the emotional reaction you are having to Chris’s unreliability. Your frustration about Chris’s behavior may be contributing to your suspicions about the accuracy of the data being generated. In your messages you didn’t give any reasons for questioning the data. Keep in mind that when trust begins to erode, it is extremely common for people to begin questioning a person’s technical abilities or integrity. Clearly, you are losing trust because Chris is repeatedly letting you down. Consequently, you are also starting to question the quality of Chris’s work and perhaps his ethics.

Second—there is the very serious and substantive issue of potentially flawed data. If after thinking about the way your frustration shapes your assessment of the validity of the data, you are still concerned that this is indeed an issue, then you cannot let this pass without further exploration. Of course accusations of scientific misconduct can be explosive and they always impact teams and the individual members significantly. So, before making an outright accusation (again check emotions) it is critical that you collect information first. Before approaching Chris, review the data carefully to be certain exactly what you are worried about. If you fear emotion will get the best of you—get an impartial third party to help you have the conversation with Chris. Explain your concern and ask to hear Chris’s side of the story. Then, you can share your side (the order is important here, let Chris talk first). Together explore the middle ground—where do your stories agree? Where do they diverge? See if you can fill in the gaps together. Many times, steps as straight forward as these (although often difficult to take) can result in resolution of the issue. If you still have concerns after the discussion, then it is time to take the issue to a higher authority.

Most well-functioning teams meet regularly and spend some of their meeting time discussing how the collaboration is going, reviewing group process, expectations, roles and responsibilities, and then addressing areas in need of improvement [13]. This makes raising issues feel like much less of a personal attack than it would if problems were never identified or discussed. Again, separating the emotional and personal side from the substantive and idea side, it is important that you be very specific in raising issues. For example, if you have concerns about someone’s data, this should be stated directly. But if your concerns are about reliability and meeting deadlines, bringing up questions about accuracy of data might just lead to a conflict that undermines the functioning of the team as a whole.

Dear Doc,

I was just chosen from within my organization to head a virtual interdisciplinary department. I am very eager to start launching some interdisciplinary projects. I have enough money available to fund a few small pilot projects and would like to spark some innovative ideas in our institution. My concern is that people around here are not accustomed to scientific ideas coming from the top down. Sure people will come together for the money—but the new structure around interdisciplinary research and

ideas coming from me will be a put off. Thoughts about how I can ease into this?

—Aspiring Catalyst

Dear Catalyst,

Sounds like you are about to start shaking things up. You are right, people will respond to the possibility of more funding. Research teams can succeed when launched top-down or from the bottom-up, as long as there is support from the top, and you now have one of those positions at the top.

Use your ideas about interdisciplinary research to stimulate interest and the prospect of funds as an incentive to bring a group of faculty together. Extend an open invitation to anyone interested in attending a meeting to discuss innovative new ideas around whatever broad problem you are interested in solving. Inviting everyone is a great place to start, since you never know who will show up or what new connections can be made. Be clear that the goal is to bring people together across organizational divides to think about the problem in new ways.

At the meeting, share your vision with the group, let them know why you are doing what you are doing, what you hope to accomplish by bringing them together, and why the particular area of research is exciting and worthy of support. Mention that you have some seed money and are looking for some great cross-disciplinary collaborative ideas to fund. Challenge them to come up with a proposal you couldn’t turn down. After a brief introduction stop talking and ask people to introduce themselves, share what part of the organization they are with, what is intriguing to them about the challenge you are putting forward, and how they could contribute. Get them engaged and discussing the research.

Encourage the group to explore connections, possible ways of complementing each other, and to identify challenges to be addressed. When you sense some enthusiasm and energy is being created, ask the group to specify a topic or two that merit further discussion. By the end of the meeting you want someone to step up and volunteer to take the lead in assembling the group for a next meeting (you may need to help them volunteer). Discuss with them whether or not you should continue to meet with them—either way—they should be given the responsibility of driving the effort while knowing that you are available to discuss ideas as they develop a proposal for funding consideration.

Set the stage for their next meetings by suggesting that they create a mission statement that captures the major overarching goal for the group. Tell them not to get stuck here—mission statements can always be changed—it’s meant to be a starting point. Then ask them to create the objectives to support that mission that make clear what the group is going to focus on and what the major areas of emphasis will be.

The process should be iterative and interactive—be sure to stay engaged and available for discussions. If the faculty is truly weary of this new structure, it will take some time for people to see the benefits, so be ready for that in which case your presence at a few of the early meetings will be important and valuable to them as they develop.

Dear Doc,

I just inherited a team and am trying to figure out how to work with them. We have had just a few group meetings to date and it is not at all what I was expecting. From the outside this team always looked like it was functioning so well, but now that I have been asked to take it over (the previous leader left for another job) I am at a loss. At our meetings, people don't want to share information with each other, are snappy when questions are asked about how they achieved a result, and if they must share data they seem to pick small bits and parts to share with the group. I have met with all the team members individually and in those meetings they are willing to share their results, thoughts about moving forward, and engage in scientific debate about our project. Once we get in a room together, it is more like a standoff. What is happening and how can I get this group to engage in the types of discussions they are willing to have with me one-on-one?

–Stumped

Dear Stumped,

What you describe is a natural part of group evolution and your team is “storming”. The development of a team over time, from creation to high integration and productivity occurs in stages: forming, storming, norming, and performing [14]. Whenever there is a change to the group composition, in this case the change of leadership, the group will be disrupted and will need to go through a storming phase in order to reestablish itself in a high-performing mode.

This is a critical period for the team and for you as a leader. Trust needs to be established, roles and responsibilities must be clarified and re-defined, expectations set, and your vision shared with the group. So while the conflict that occurs during this time can be concerning if it turns personal, it is also quite normal. The trick is to keep it substantive.

At your next group meeting, specifically discuss the vision—whether the vision is the same or has changed now that you are leading—talk it out so everyone is on the same page. Ask for their input, their concerns, and their ideas. You also need to talk about roles, responsibilities, and expectations. These conversations can either be the full agenda for your meetings, or just a part of each meeting. Either way, they are important to have. I often suggest that these discussions get memorialized in some way. Whether through meeting notes shared with the group or a more formal listing of all the aspects of the work the team is doing together, it helps create a scaffold for the group interactions and provides clarity to everyone about what they are doing in support of the project as well as something to which people can refer later [1].

As trust builds (or re-builds as is likely the case here) and the group moves from storming to the norming phase, your role as a leader will also shift from being more directive to more participatory in nature. In addition, you'll gain increasing credibility as the leader of this group.

Dear Doc,

I have been running a successful lab for a number of years now and balance that with teaching at a small

liberal arts college located in the country's mid-section. I keep a fairly small group and engage many undergraduate students in the work I do. The college and our surrounding area are not exactly known for its diversity, although there are efforts to try to increase that. I recently was invited to become part of an interdisciplinary collaboration with several colleagues at different institutions. As part of this greater effort, I was asked to host two trainees for a couple months so they can learn some of the techniques I have developed in some newly created systems. In turn, they will set up these techniques in another lab in our consortium so they can perform some parallel investigations. Of course, this is a great way to share knowledge and train students and I was eager to do this.

They are here now, and both are from Asia. I am finding the dynamics of our interactions somewhat uncomfortable. We meet in the morning and outline the day. Typically, I am training them for an hour or so and then give them some work to do independently to practice so they'll learn to perform the technique on their own.

The work presents some challenges because we need to figure out how to make this transferable to a new place—there are some kinks to work out. Yet, I am finding that there is very little questioning of how I do things or my directions to them. While I'm used to a respectful lab environment, I have been successful in assuring we have an open exchange of ideas. Basically, if someone thinks I'm going about something the wrong way, they tell me (and each other).

As we have worked together for a few days now, it became clear that the system will need to be redesigned slightly to work in the other lab. I know the two trainees who are here are quite talented and can help me figure this out—yet when I suggest something that is off beat or make a mistake (yes I make mistakes)—they do not question me. I find out later that they have improved or corrected the situation together—but without discussion with me, and almost appear nervous to let me know they found a solution. I have not encountered this type of a situation before. What can I do to bridge the communication gap and have them become comfortable in telling me I did something wrong?

–In need of translation

Dear In need of translation,

First of all, kudos to you for being so in tuned to what is happening and for trying to figure out how to work better together before there is a problem. Giving people permission to behave in a particular way, open dialogue and challenging a superior, does not always work if there are cultural norms and deeply held values at play. Recognizing them, honoring them, and exploring ways to make it safe, or culturally comfortable, is the way to go. That definitely may be the case in this situation and one way to approach it is to sit down and talk explicitly about cultural norms from the perspective of curiosity and desire to learn. Talk it

through and then see if you can come up with a few ideas for how to honor each other's cultures and norms and still come up with ways of discussing the challenges more deeply.

Additionally, you may want to set up an opportunity for an informal get together during which the whole lab can openly share differences in the norms that they have experienced in the past, how they experience the existing norms in the lab, and what these differences mean to each person. This can expand the learning of everyone in the lab, enrich awareness and provide tools and approaches for how to openly discuss differences. Add to the discussion how hierarchy fits in, what it might mean to challenge someone in authority, and what the impact is on idea generation and innovation. This approach will generate some shared understanding, a profound shared experience, and will also contribute to building trust among group members.

I often get questions from people who are planning trips to other countries asking how to respect cultural etiquette and norms. Clearly, there is no one answer as there are likely as many answers as there are countries. There are a number of books that have been written that give advice about cultures when traveling in different countries and provide in depth information about the emerging area of cultural intelligence—additional tools for your tool kit [15–17].

Dear Doc,

I'm part of a team and I love it. I'm writing because we realized we really needed a behavioral scientist on our team. We've got this great idea for a device that would serve as an intervention for overweight and obese people trying to lose weight. We realized that having the perspective of a behavioral scientist would be critical to begin assessing whether our idea for this device would be acceptable and used by the target population. So, we invited a well-respected behavioral scientist with expertise in weight loss and exercise interventions to work with us. He gladly accepted the invitation with the caveat that his schedule was very busy. He offered to send one of his brightest trainees to represent him—qualified by the assertion that this person really was top notch and could contribute much of the expertise needed—and he of course would keep up to date through her and could make himself available from time to time.

Well, Doreen has come to every group meeting (seven so far) since the commitment was made. Trouble is, she has spoken up only a handful of times and when she did so it was by direct invitation to her from one of the members. I have to admit that we're a dynamic bunch—lots of banter back and forth and a few tough personalities constantly challenging assertions and sometimes forgetting there are others in the room. If you want to say something, you just really need to jump in and interrupt.

At the meeting, she is totally engaged and fully present. I know this because she'll come talk to me after the meetings and I'm totally blown away by what she is saying. I know she has great ideas—and I

have told her she just needs to speak up at the meetings. To her credit, I have seen her try a couple times, only to be ignored, interrupted after a sentence or two, or trampled by someone else's eagerness to get a different point out for discussion. I have tried sharing some of her ideas and asked her to explain to bring her into the conversation, and when she starts talking she inevitably gets overpowered by others in the room and the conversation takes a new course.

So, what can Doreen do to get heard and how can I make sure her great ideas get out on the table for discussion? I don't want to serve as a go-between.

—Wasting powerful expertise

Dear Wasting powerful expertise,

What you describe is not at all uncommon, especially for more junior team members. Doreen's situation is a brilliant example of someone who is in a potentially powerful position by virtue of the expertise she brings to the team. She is not exercising that power due to the strong dynamics going on at the meetings. It is interesting that although you are aware of the dynamic you haven't found a way to step in and create an environment where her voice could be heard. My guess is you probably have a fair bit of power yourself but the team norms and high energy make it awkward to intervene on Doreen's behalf.

I would suggest a two-pronged approach. Since Doreen comes to talk to you after the meetings it must be that she trusts you and has confidence that you will listen to her. You could, in a supportive rather than critical way, suggest that she would benefit from some coaching on how to get into the conversation and how to stay there. She's probably not used to this, so it will take some time for her to change. You can help by providing encouragement as she manages the discomfort that goes along with trying a new style of interaction. She is still very early in her career but even if she never enjoys being more assertive in groups it is an important skill in the world of research. You can also help by reminding her that she is at the table for a reason. She has information that no one else has and this makes her a critical (and probably quite influential) member of the overall team. This is good motivation for her to start taking more chances at meetings and speaking up. Role-play with her. Have her practice saying "excuse me, I'm not finished yet," or "you interrupted me, I'd like to finish my thought", or anything else that you experiences in these meetings tell you is acceptable language around this particular table. Also, have her practice interrupting you and jumping into a conversation without actually waiting for a lull.

Second, you can help the rest of the team recognize that unevenness of participation in the group is not merely the result of differences in expertise, knowledge or personal style. Teams have to be self-conscious of the way they create an environment that encourages or discourages broad participation. If team members want to fully exploit the diversity of expertise in the team they have to work at it. You can begin by sharing your observations with the team perhaps supplemented by private conversations with those who are seen as the

leaders and who are the most boisterous. Ask them if you can spend the first 10 min of each meeting by going around the table and getting input from each person, either an update since the last meeting or something they really want addressed at the current meeting. This is a simple step but it can change the climate of the team. This gives each person a chance to talk and get their ideas out—and the group can practice taking turns and listening to each other without interrupting. This may be very difficult for those who are used to more dynamic free-form meetings so you'll need an agreed upon approach to let everyone have a turn. If you get agreement to this change then suggest that the team set as one of its overall goals maximizing the contribution of each of the team members and include some process for assessing this on a regular basis.

I would suggest being very transparent about why this is being done—the team is stronger with everyone participating fully and if voices are not being heard, for whatever reason, the team as a whole suffers.

Dear Doc,

I just got volunteered by my boss to join a team focusing on a scientific question that is really not that important. I mean, it is important to her, but I think it is a waste of time. In addition, the group working on this project, they are all nice, but it is not really a good match for me, that is, they are largely mediocre scientists and I'm not convinced that the project will ever amount to anything. I'm a strong scientist and I'd much rather focus on my own work, which is not only very exciting, but very important. How do I tell my boss I'm not interested?

—Not for me

Dear Not for me,

Not everyone is cut out for working in teams and not every project benefits from being addressed through a team approach. It is time for you to exercise your skills as a diplomat, if you have them. Telling your boss that her pet project is not important is probably not the best way to handle this. But if you have had a good working relationship up until now and she respects you enough to want you to join a team on what she considers an important project then perhaps your boss will appreciate your passion for the project on which you are currently working. Explain your current project to her in enough detail for her to understand why you want to devote your energies to that project. If you typically work without many collaborators remind your boss of that fact. If there is any middle ground, offer it up. For example, would you be willing to give the group advice in your area of expertise if they need it?

Dear Doc,

I really need your help. I am a tenure track faculty member trained in neurobiology and participating in what could be an exciting transdisciplinary team studying pain in a group of people that may have had a common environmental exposure. The project is interesting and team is composed of an amazing mix of scientists with expertise in clinical research, genetics, epidemiology, toxicology, envi-

ronmental science, and we even have a state assigned social worker. In addition, we all come from many different countries with five different primary languages spoken among us. I have no problem with the different ethnicities, that's just part of science these days. But the leader of the team insists on employing what she calls a "reflexive" approach to building our team [13]. This means we have to spend lots of time together talking about ourselves, our scientific backgrounds, our career goals, and our epistemology (*whatever that is*).

Let me tell you what she wants us to do. In our first meeting, she wants us to give brief autobiographical statements and then to spend some time talking about our hopes and fears about the project and reveal our known biases and hidden agendas. The idea is for us to become aware of various personal differences that might have an effect on how we work together. In the next session, we are going to have to talk about our scientific differences looking at the different methodologies we use and explain our approach to defining and analyzing data. She keeps saying that "we will need to develop a common language" so when we use certain terms we can be sure we mean the same thing. My reaction to all this is "You must be joking!" I don't have the time for this "touchy-feely" stuff. I don't mind working with people but I'm a scientist not a therapist and certainly not a philosopher; I just want to do my research, analyze data, and publish results that will touch real people's lives. That is what has real impact.

To make things worse, her vision of the team involves having meetings of this sort regularly. Once we get past these preliminaries, she wants us to use a similar reflexive process when we are analyzing data and again while we are writing the paper and responding to drafts. I'm beginning to think I made a big mistake when I signed onto this team. Do you think I should just withdraw and return to my own work? I was developing a pretty good reputation.

—Too much togetherness

Dear Too much togetherness,

Poor baby! The mean team leader wants you to play nice with others. Sorry, I am usually more patient with the people who write to me but there is only so much self-absorption I can bear.

Let me start over. There are lots of challenges that come along with working collaboratively in scientific teams. For scientists accustomed to working in their own lab and controlling almost everything, the need to share, coordinate, and check-in with others on a team can come as a real shock and feel like an intrusion on their autonomy. It is. But there are reasons scientists are increasingly working in teams. The project you mention is a perfect example.

But teams don't just happen by throwing people together and telling them "solve this problem." Obviously, your leader knows this and she has set about attending to various processes that are intended to help create an effective team that will be aware of, and will take advantage of, both their scientific and personal differences. This way your energy goes into solving the

research problems and not sidelined because of personnel issues or differences in approach that were never discussed. Believe me, observing to two researchers who are using the same terms to mean different things, not realizing the other has a different definition, and then arguing is a very sad, but not infrequent occurrence.

Please trust me on this—go back to the team leader and explain to her that you are having a hard time embracing the reflective approach she wants to use. Ask her to help you better understand why she has chosen it, what past experiences might have gone into her decision to use this process, and then try to participate in the next few meetings with a fresh perspective. If it is still unbearable then by all means withdraw from this team knowing you gave it your best shot.

Have a question for Dr. Doc? Write to Dr. Doc at DearDrDoc@gmail.com and visit her webpage at DearDr-Doc.com.

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