**Title: Give a Great Research Talk  
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**APA/Peggy Mihelich:** Hello and welcome to our latest installment of *Supercharge Your Presence*. I'm Peggy Mihelich, director of member content here at APA. Today's webinar focuses on giving a great research talk. This presentation will cover the following topics: how to figure out the central message of your talk in a clear way, how to decide the right level of detail to provide your audience, tips for presentation clarity and slide creation, and more. Some important points before we get started.

The views expressed in this presentation are those of the presenter and may not reflect the views or policies of the American Psychological Association. Next, this program does not offer CE. However, we will email everyone watching live today, a certificate of attendance. During our time together, you will be on mute. You can communicate to us using the questions box located in your webinar control panel. Have a question for our presenter? Type them in using the questions box located in your webinar control panel.

Now, for our speaker, June Gruber is an associate professor of psychology and neuroscience at the University of Colorado and director of the Positive Emotion and Psychopathology Laboratory. Gruber has published over 100 articles and chapters and has edited *The Oxford Handbook of Positive Emotion and Psychopathology* and *Positive Emotion: Integrating the Light Sides and Dark Sides*. Dr. Gruber also co-writes a column for young scientists for *Science Careers* and is engaged in co-leading a call to action centered on the mental health crisis sparked by COVID-19. Dr. Gruber is excited to share her research top tips and tricks with you today. Welcome, Dr. Gruber.

**Dr. June Gruber:** Thank you for having me. I'll just get my slides shared here in one second. Thank you so much for the kind introduction. I'm really delighted to speak with you today on *Giving Research Talks: The What, How, and Where*. The way that I hope to organize this today is through a roadmap. As you'll see as we go through today, I'll do my best to try to emulate some of the advice I have through giving this talk itself, so very meta, I suppose, in a way.

Today, what I hope to cover in our roadmap together is first starting with just a foundation of what is a research talk and the various forms, varieties, and outlets that they can be presented in. Next, I'll get to the "how," which are some tips on, how do I give a good research talk? I'll conclude with some resources. For those of you who are interested in wondering where can I learn more, I have some handy examples of talks, readings, and other sources that I hope are useful as you move forward in thinking about planning and delivering your own research talk.

With that, I'll start with the "what" of a research talk, which is mainly and precisely, what is a research talk? When we think about the "what," it's kind of puzzling in a sense that we're combining two different kinds of terms. On the one hand, we're thinking of research. The systematic investigation into and study of materials and sources to establish facts, reach new conclusions.

What we're trying to do in a research talk is to merge the process of research with disseminating or sharing it with a broader audience, right? We're trying to find a way to take research and speak or present in order to share or give that information or express those ideas to another group or a set of individuals. That's the "what" of a research talk. We're trying to share new insights, new facts in a way that is understandable and interesting to our audience.

In that sense, your goal and purpose of a research talk is to convince other researchers or audience members more generally that you have done something intellectually deep, interesting. In psychology, we think of public health relevance as well to get them to, if their fellow scientists try to build on your results, get them interested in reading your work or find ways to apply the work that you've done to a broader setting, so the kind of translational hope of research.

Another aspect when we think about research talks is not simply defining what a research talk is and its goal but to recognize that there are different forms or varieties of research talks. Here, I outline four common types of research talks that vary in length, in goal, and in audience. One type of research talk I'm starting with a brief reform that's gaining a lot of momentum in our community is what's called a flash or data blitz talk.

These are getting more and more common as we see ways to briefly and concisely share a piece of your work with a broader audience. These are anywhere typically from one up to five minutes where your goal is to take a bite-size nugget of your research and share it with a broader audience, give them the take-home headline from the study with the hopes that they'll then want to learn, communicate with you, and read more.

A traditional type of talk, and this is often one of the first kinds of stop talks graduate students in my program will often do, is a conference talk. This range anywhere from 10 to 15 minutes. They're often part of a symposium or a group of anywhere from four to five talks where, within 10 to 15 minutes, you are going to cover maybe one or two studies more in-depth that convey specific research findings. You're going from background to methods, to results, to implications in a brief 10 to 15-minute format.

Bigger, broader talks, and what researchers will often give later on in their career, what are referred to as colloquium talks or can often take the form of an academic job talk. These are talks often given to an entire department anywhere from 45 to 60 minutes, where you have a goal that extends beyond a typical conference talk where what you are trying to do is to share a broader research program, a big picture goal of what it is you do, and to show those themes in your research with a sample of programmatic or emblematic studies along the way that show them the kind of work you do and how you do it. This often concludes with future research directions of where you hope to take your research program looking ahead.

Finally, I often feel that conference poster presentations get left off when we think about research talks that are a critical part of presentations, especially for emerging trainees. Trainees will prepare a typical conference poster that is either printed and put up on a typical kind of poster board, or these days with virtual conferences, they're uploading in a single PowerPoint slide with their entire poster on it.

Although the focus is often on creating the poster, one of the most important pieces is finding a way to summarize it or give what's called an elevator pitch where students are asked to prepare sometimes just a one-minute brief pitch about their entire poster, walking someone through the background that motivated these study methods, results, and conclusions. I think these are critical to also consider because they are some of the earliest ways students and trainees in our field are presenting and sharing their work with a broader audience.

Those are four common varieties of research talks. Now, there's also other ways that research talks can have important dimensions that they vary. The first is on where you're presenting. You may be presenting in person at various geographical locations. As we've all seen transformations over the past nearly two years, they are more and more growing such as today, remote-based presentations using web-based platforms, whether it's Zoom or, today, the GoToWebinar, where we're finding that these are really interesting and unique modalities of where we're presenting and how.

There's also the consideration when you give a talk of, who is your audience, who are you presenting to? You may be presenting to colleagues in your department, students, mentors, other psychologists. Perhaps you're presenting in a broader field. Maybe you're giving a talk outside your subfield to colleagues in near or closely distant fields, whether it's business schools, medical schools, public health, if you're coming from a psychology department, let's say, as an example.

Then there's the broader public. This is where I'm hoping our field is going to engage more and more. We have some wonderful examples in our field of people who are really working hard to communicate their work to a broader public. From Dave Nussbaum to Dave Myers to many others, Mitch Prinstein included, finding ways that we can as psychologists engage a general audience who are interested in what we do but don't necessarily have background or training in your area or even within psychology itself.

Starting with what is a research talk, thinking about how we define it, different varieties or kinds of talks from conference talks to flash talks to broader one-hour colloquiums to also thinking about the context for giving talks, whether it's in-person versus remote, as well as whether we're seeing those talks happening with our audience, seeing people we know and are intimately familiar with what we do versus a broader public audience.

Now, what I'll do is I'll turn to, really, the core substance of our meeting today, which is really on thinking about tips as to, how do we go about giving a talk? I always start with, before saying how we do want to give a talk, some important don'ts of research talks. Certainly, don't wait till the last minute. That's not saying that some of us stay up till the night before deciding for the first time to watch *Dune*, [chuckles] so don't do that. Don't stay up late or the last minute procrastinating and watching very long movies.

Don't leave a messy desktop. Like I realized this morning when your whole screen gets shared for remote talks, you want to be mindful to kind of maybe clean up your desktop and don't let Zoom bombers invade. This is as someone who's a parent of two young boys and has a couple of very loud dogs. These are some things maybe you don't want to do, but yet we all, myself, are guilty of, so it's, "Do as I say, not as I do."

With the don'ts of research talks then, I'll turn to some of thinking about the "how." This is that second point in the roadmap as we think about, how do we go about delivering research talks? I think of this in four different interconnected pieces. Literally, I think of this, the metaphor of puzzle pieces. I break this down into the different stages of research talks. Perhaps the biggest stage for many people is the "before" when you're preparing your talk, assembling the slides, and practicing.

Then there's the "during," where you're delivering your talk to a group of people. The part we don't often give enough attention to, which is immediately "after" when we're in what's called the Q&A or question-and-answer period. As I think about I call "closure," where we're concluding and following up maybe with people who attended our talk and have questions. We think about how we can take feedback we got and what we learn from that talk to crystallize it for our learning and move forward.

I'll start with the "before," which is probably one of the biggest, most significant pieces of how we go about creating and assembling a research talk. The first thing I can't emphasize enough is practice. There's no one I know who I would say is a natural at giving talks. In fact, it's really a learned skill that we can only strengthen over time and that it really doesn't strengthen until we do it. It's the "practice makes progress."

The best advice I can give, especially for those who are either early in their training or are giving a talk in a new area or on a new topic, is to start early. I often recommend when possible, starting at least two to four weeks in advance, writing out, even on a piece of paper, the outline of what you want to talk about before you then get to putting those slides together. Starting early will give you the opportunity to think through what it is you want to do and to practice it.

One piece of advice that I give everyone and I see many of my colleagues, even those who are senior, use it to this day are what we call a "talk script." There's no need for you to go about memorizing everything per se, but you can take those lists of notes. You can have them either on old-fashion paper that you print out, or these days, we have this wonderful thing called "presenter mode" on most platforms from PowerPoint to Keynote to other kind of possibilities that allow us to really write out exactly what we want to see on every slide.

It's that script that we can use when we're going through and rehearsing. Even in the moment when we are giving that talk, we can look at when we're in a moment where we might have lost sight of what we wanted to say or to bring us back to the original format and presentation we wanted. Create a talk script. Don't ever feel like you should do a talk on the fly.

Finally, and this is perhaps one of the most challenging things to do, is to take a third-person perspective and watch yourself. Sometimes we don't often know how we come across in our presentations until we see it ourselves. We have options now with Zoom and other remote platforms where we can record our talks and literally feed them back to see how we're coming across.

There's also options of when you're practicing watching yourself in front of the mirror. I think sometimes the most important feedback we get is not the feedback we get when we're presenting it from our own mind's eye, but when we're watching it really literally in the footsteps of someone else. Start early two to four weeks. Create a talk script. That's literally, step by step, what you want to say.

Often in a talk script, I'll also have notes that will tell me exactly at which sentence to hit the arrow button to have animations come up, to hit a button of when to tell me to segue to the next slide. It really guides you step by step on what to do. This is a great way to get in the mode of really knowing what you want to say, how you want to do it, and to make sure it's coming across the way you intended.

Again, to watch yourself either over a computer recording of yourself speaking in front of the mirror, finding ways to really observe how you are delivering or talking, finding things that you want to work on. The "before" is really practicing. Then the piece of "during" is really thinking about, what are the ways you want to deliver your talk? Here, I'll give five top tips. They're not exhaustive, but they're five common tips that come to mind when I've helped my own trainees think about giving their first talks or that I try to keep in mind now as I'm trying to assemble talks myself, and also the things that I've observed in talks that I've really enjoyed or I thought delivered a really amazing robust presentation.

Tip number one of five is to really think about your audience and keep them into consideration if you're trying to give a clear message. This is from my columnists Neil Lewis, Jr., Jay Van Bavel, Leah Somerville, and William Cunningham do a periodic column for *Science Careers*. In 2019, the topic was tips for giving a great research talk. It was a very brief column emphasizing some of the points many of you are here today for. There's a link there if you'd like to read it.

One of the most important quotes from it that's at the very beginning that I always keep in mind is the people who come to your talk. I think of all of you here today. When people take time out of their busy day to listen to us speak, we owe it to them to ensure that they get something out of it. This is what I call the other-orientedness mindset we need to take when giving talks.

Often, we're very preoccupied with ourselves on how we're going to come across and what the experience is like for us and attending to our own feelings and nerves and anxiety. If we can just flick our attention outwards and to really focus on our audience and what we can do for them to make sure that experience is meaningful, it shifts our mindset from self to other but also ensures that who we are giving our talk for and who we are making the slides for are really considering those who took their time to come listen.

Again, this first tip is from a column with some of my wonderful colleagues in thinking about some of these important pieces. From that column, in thinking about the audience and why they're there today is to find a focus, find a central focus of your talk. This should be something that you're keeping in mind as you're giving a talk because what you want to make sure is when you're giving that talk, asking yourself these questions.

One, what should the audience leave with after hearing you speak? What should the take-home message be? Ask yourself this and answer it in one sentence because that's what's really clear. We can use a talk to present a hundred different things and methods and findings and this and that, but that will often leave our audience a little bit flustered at the end, right? As opposed to when you've walked away from a talk, what was that one-sentence summary of what you got out of it? What were you supposed to learn?

Asking yourself these questions can help find a central focus. What should the audience leave with after hearing you speak? Importantly, people come to talks to learn something new, something exciting. What is something your audience didn't know before your talk? What's something new they'll come out of it with? Third and last question is, really, how much can they exactly remember from your talk?

It's nice to think that more is better, but that's often a strategy that backfires in talks. We all know that our attention is fragmented. At the end of the day, when we read an article online or listen to a talk, at most, we can probably remember three things. To keep that in mind so that you don't overload or inundate your audience is to, at most, think about what might be three top things that they can remember from this talk.

Narrowing in, less is more and getting really clear on a simple central message or focus you want to provide your audience. That's my tip number one. Tip number two is really thinking about telling a story. Science doesn't have to be boring. I say that very directly because often there's a kind of external reputation of science being very dry, very formulaic, but in fact, science is the meaning humans make of it.

When we're sharing that science with others, importantly, we need to share in a way that captivates our audience. I often think of stories, right? I'm a parent of young children, so we're often reading stories and talking about how stories have beginnings and middle and end. This is, on the left, a graphic from just a kind of common storyboard format you would think about with the introduction, the main idea, and a resolution and conclusion.

If we apply this to research talks, and this is a slide borrowed from one of my favorite colleagues here at Boulder, Lew Harvey, he says when you tell a story in a research talk, you're doing the same thing. You're just using different exemplars to do it. Your beginning or part one is your introduction. That's where you get to set people up with, why is this topic interesting at all? This is where I love to use starting with quotes or anecdotes about the phenomena, which we're so lucky to be able to do in psychology.

We have at our disposal, real-world examples of the things we're often studying and care about. Then you use that middle, the details of what we call in that storyboard. Our details as researchers are data points from experiments. You get to give. I often say if you're giving a longer talk, one of those colloquiums, maybe up to three example experiments where you go and dive deeply in and come back out as Lew Harvey puts it from giving them the ins and outs of your methods to results.

You can do that maybe up to three times. Again, people can only listen to and intake so much information at once, but you use these experiments as the details of your story so that you've made a case for why this thing is exciting, giving them details of experiments to show them how you approach that puzzle. Then at the end, you really get to give them broadening back out that take-home message, giving them resolution of, "Okay, I've listened to all this. Now, what do I take home? What's the takeaway message? What's the conclusion of what we've learned and where do we go from here?"

I can't emphasize enough that telling a story is so critical. I've seen talks where people just string together information, strung to information, strung to information without really engaging in the art of storytelling. It can leave your audience disengaged and importantly unclear about why they came to the talk, why it was important, and importantly, giving them that resolution and sense of take-home conclusion as to, at the end of the day, what have they learned.

When I was thinking about giving this talk the other day, a colleague of mine, Brian Knutson at Stanford, shared a wonderful article that actually just happened to come out in *Nature* on December 1st. That was, *How to Tell a Compelling Story in Scientific Presentations*. I thought this couldn't be more timely and I shared the link below. It's an article you can access and it makes three points.

The author argues how you can make that story compelling. The author argues that point one of three is to actually use the title to state your findings. Often, we have these wordy ways or roundabout ways of being vague and big picture in our talk titles, but often that can lead readers unclear what they're expected to learn. The expectations at the outside are really critical. They argue that you need to state the main findings or the main takeaway message in the title.

In fact, get to the point. In fact, just tell your audience what you found. We often feel we need to have this art of elusiveness and mystery. In fact, that's one of those misconceptions that we have about talks and also papers is that clarity and simplicity is really what an audience is looking for. When assembling your talk title, just state the findings or state the main takeaway point if there's multiple findings you're going to cover at the very outset.

The second that I really appreciated from this was the idea that it's okay to use what he called dramatic effect, the idea of one expected this, but this happened, and that the use of the word "but" he argues is a powerful tool for scientists. I'll walk you through an example he gave that I thought was really interesting and quite relevant to our time these days talking about coronavirus.

This was a sample he gave where this starts out with the coronaviruses have developed a variety of mechanisms to repress host messenger RNA translation and allow the translation of viral mRNA and block the cellular immune response. Okay, but, and there's that use of the word "but," a comprehensive picture of its effects are lacking. That's that kind of juncture point that you can use to then go there for and set up why you do the work you do. Why does it matter? Don't forget to use the word "but" and have what he called a dramatic effect.

Finally, the last of these three points of telling a compelling story is what he called using the power of contradiction. This power of contradiction can help maintain audience engagement. I'll show you the example from this article that I thought was really compelling. He notes as well as we've talked earlier, what you don't want to do is just string finding one to finding two to finding three to finding four like you're going through a list of dry, formulaic bullet points, but you want to tie them together with the theme or story.

Contradiction can be one compelling way to do that. He calls this the power and solution cycle. I thought of this as the tie that binds, that this might be the tie that binds together different parts of your research talk. When you get into that middle part in particular and talk about those experiments, how do you string them together in a way that doesn't just look like you're slapping together part A, B, and C?

He walks through this cycle and here's an example of how he presents it. He says you might start when you're sharing data to present your first set of findings or results, but then don't just end there and say, "Here's the results of my study." In my case, I show sometimes in my research that wanting more happiness doesn't always make you more happy. He says you don't just present the results. You then say, "What's the problem that remains?"

We often think of this as like, "What's the thing we still don't know?" That thing we still don't know, that, what I call "empirical gap," will then set up the next set of findings. Think of a problem that remains from those first set of results that then you can come to immediately with your second set of results. It might also be that perhaps your first study was correlational. You can't say anything about causation.

Lo and behold, surprise to everyone. It's okay that you're setting them up to wonder and expect a problem. That study two then is going to be an experimental design where you've manipulated some variables, so you can at least get a causality, but maybe then there's a problem with study two insofar as you only studied it in a very small sample of very heterogeneous, let's say, undergraduate students. You don't know if this is going to generalize across diverse socioeconomic and racial and ethnic samples.

Then there's study three that does just that. You can reiterate this cycle for as long as is appropriate in your talk that you never end the results just with a period. You end it with a question mark that compels readers to feel curious and concerned with what is going to happen next. You go through the cycle and, at the very end, restate all the main findings, the takeaway message, and how your results support that.

Again, remember that you don't just want to string together your ideas. You want to tell a story with them and a story that piece one sets you up to feel something's missing or there's a problem that piece two will come to the rescue for. Tip three, and this is not surprising, given what you've seen today and what I've been alluding to, is don't simply expect your readers to know where you're taking them.

You are taking them on a literal journey. It's your job to give them a clear structure of what you're covering and in what order. This is like the most important piece of the talk in many ways is a roadmap. A roadmap is really intended to guide your audience through every single step of your talk, letting them know at the beginning where you're going to go, and as you go through those stops coming back to the roadmap.

Common points on the roadmap can be a background of past work. Another stop can be the current work or the kind of details of your story. The third step can be next steps. Here's a couple of examples. The one on the left is one that I've used in previous talks, on talks I've done in recent times on emotion and mental health in college students before and during COVID. On the right is a really lovely roadmap my grad student Stevie did.

You can see they can look different, but the point is really that you give it to your audience right away. Every point you come to as you go along your roadmap, you bring this slide back up again and again and again, showing them where they've gone on the journey with you. At the very end of that journey, always have a takeaway slide. There's an assumption that our audience should be able to "get it" or simply infer the importance of what you've shown them.

I don't ever assume anything with an audience. You're giving them possibly new information that they've heard for the very first time and they're really digesting a lot. You need to tell them it's your responsibility as a presenter to synthesize for them and remind them what they should have learned. This is a takeaway slide from one of my studies on difficulties with positive emotion where we presented a series of studies.

At the end of that set of studies, I have three key takeaway points that zoomed back out and tried to tell my audience, what were the three themes that I hope to convey to them in that talk? Have your roadmap guide them through and, at the end, give them takeaway points. Make sure that you've told them what they should have learned. If by any chance, they didn't get those points, that's going to help signal them to what they can ask you in terms of questions later on and help them think about what they want to learn more of too.

Tip four of giving a talk out of the five top tips that I mentioned is being clear. Paul Grice, some of you may have heard of his conversational maxims. This is something we talked about in the column I mentioned with Neil Lewis, Jr. and others is being clear. In his Paul Grice's conversational maxims, he talked about the maxim of manner. Importantly, he emphasized that you need to be clear and to avoid ambiguity and obscurity.

I find this is perhaps one of the most challenging things we face in delivering research because we have this temptation as we move along in our field to demonstrate our expertise through use of jargon and complicated sentence structures. The very thing is that the further we get in our training, the greater demonstration of understanding what we do and making sure others understand is to simplify and be clear.

Some examples of ways we can be clear when giving talks is to have minimal words on slides. One of the strong rules I try to share with my trainees and try myself to do is to never have full sentences on slides. Slides are not meant to be a visual display of your paper or of your study. They're meant to be simple guideposts to help anchor you as the speaker, but fewer words is better. They're kind of reminders to you, reminders to your audience.

The minute you put up full slides, whether you're presenting research or for those of you who have taught or TA'ed, you notice that your students will often immediately disengage and just start writing things down. They're no longer listening to you. They're trying to scramble to get what's on your slide onto their paper, so make it easy for them to listen to you by not having too much distracting verbiage on your slides.

Point two, avoid jargon at all costs. If you do need to use a very field-specific word, define it at the outset right away. Then wherever else possible, try to use simple words. Lastly, consistent with the simplicity approach on slides, minimal words, avoid jargon, and really think of each slide as making three to four points max per slide. Once we get beyond that, we've lost the audience. We really should be transitioning to another slide if we have that many points we need to make. Few words, no full sentences, avoid jargon, and three, four points max per slide.

Last but not least is point five. With this is something that I think we think about a lot when making slides. I certainly do, which is being careful or sort of mind the visual effects because these can be both an element that engages our audience, but when taken too far can feel very dizzying and even distracting. When I think of visual effects, I think about a couple of tips that I've found helpful over time and that I've heard senior colleagues of mine, I mentioned Lew Harvey, who's a wonderful colleague and a visual scientist researcher, talk about also what we can literally digest within the human visual system.

Color contrast can help. I've gone today back and forth between both of these examples. The first is black background with white font, which is what were some of the initial slides you saw, to transition to a very simple, what you see here, the traditional white background with black font. I think there's varying perspectives as to which of these is preferred, but I think both of them have a common element of providing contrast so that your audience can see the font and be able to not have to squint too much to follow along.

Along these lines too, you want to be very careful about font size. Typically, larger font size can be better obviously up to a point, but your goal is to make it as accessible as possible. Particularly, I think of in-person talks. We have audience members in the very back of the room at times and we want to make sure that one could see it from far away. Font does matter.

This is often one of those things that people have a lot of personal preferences over, so I will share some of my favorite, which are Helvetica and-- It's funny. I use this font so much and then I think, is it Neue? One could debate, but I like that font a lot. Arial can be very simple, very effective. For those of you who used Keynote, which is the software I've used today, there's a really nice option, which is ARS Maquette Pro.

I think the fonts you want to be really careful to stay away from are any cursive fonts, any sort of artsy fonts. Unfortunately, they're not going to work for visual accessibility to clearly read your words. I know some people have strong negative feelings about Calibri, so try to pick simple fonts that are easy to follow, easy to understand. I often say using simple visual diagrams or images.

One of the most delightful shares I got some years ago was this knowledge about a website called thenounproject.com. It's a wonderful source of very simple, often silhouette, black and white images that are free to download. They're free, open-source. Some of them, you can purchase, but some of them are free. I've often found it to look very simple, yet professional in slides and they have a wide variety within a search engine that you can use.

That's hopefully my gift to you is awareness of The Noun Project, which has been one of my most favorite resources. When I've had people ask where I got certain graphics from, I direct them to this website, so go check out The Noun Project. Remember with your visual effects, it's okay to have some fun too. I find myself and maybe any of you whoever had a background or just even a love of art and aesthetics and creativity that slides can be a way to let that side of yourself have expression and have a little fun.

Often, we find that there's ways we can still let our artistic fun side out. I'll give you a few examples of slides I've enjoyed making that let me have a little fun. This is an example of one you've seen already in the talk today where I try to rather than just have a four-point bullet point of the things I'm going to cover today that can feel a little dry, a little boring at times just to present it as a series of puzzles.

I've also had it where I have a little human head in the middle with four different little thought bubbles going in either directions in the diagonal corners. Just fun ways to walk people through the questions you're answering. I also really like using quotes, and so I find using quotes with pictures of the person who delivered the quote can be fun. Within that, you can walk them through and highlight different themes.

This is a quote about emotions that I love that I'll share with people and as I'm going through it saying, "Getting angry or sad is easy and anyone can do it, but doing it in the right amount, the right time, and in the right way is not easy nor can anyone do it." I have a little fun with quotes. It's something I really like to open talks up with and sometimes end with. I find that fun.

Another way you can have fun is when we do experiments, we have this opportunity where we can simply describe it in bullet point words or we can try to create it and draw it and give people a visual image of what it looked like. Sometimes that can be simple. You can take a picture of the lab or a picture of faux participants doing the study. This is a study with my former grad mentor Dacher Keltner and Paul Piff and others at the Greater Good Science Center at Berkeley, where we had this funky experiment where people who were strangers were facing each other and had this mysterious curtain pulled in front of them. They had to try to communicate emotions through touch on the forearm underneath the curtain. It's a funny experiment to just describe with words and so I thought might this be a fun opportunity to try to use visual representation instead as a way of walking people through what that study looks like.

Finally, I love walking people through findings and summarising them. This is one way I sometimes do a takeaway message is through a visual representation. In this case, I can say this is just a simple cartoon diagram where I want to show you how people with, in this case, bipolar disorder in yellow, looked different from those who are a control group in blue, and how they look different in response to on the bottom positive emotional information, negative emotional information, and neutral. I walk people through and say, "Well, what we first see is our control participant when they see positive emotional information, they have a positive response, a kind of reactivity. As you can see, in yellow, our bipolar group shows an increased degree or amount of positive emotion intensity."

Then I say the next point, and this is summarising the detailed experiments I've walked them through, is having a little fun with a cartoon saying, "Here, what we saw on the studies you just observed was that what was perhaps most striking is are bipolar individuals persisted in those magnified or heightened positive emotions across contexts, even negative and neutral ones." Their emotions seemed to persist across contexts or had an extended time window. Finally, they endorsed more reward or self-achievement-focused emotions. I think sometimes you can have fun in summarising your takeaway with fun cartoons.

Last example, I often like to share, this was something that I had fun with, as someone who studies happiness and often is inundated with these caricature smiley faces, to say, sometimes, we need to also think about what we call in my research the dark side of emotions. For anyone who's a Star Wars fan in your audience, you've given them a little bit of a break, a little bit of a laugh, and had a little fun yourself making the slide even if one spends too many hours making them there, they're so fun.

Last but not least, have fun. If you want to let your creative side out, you can but proceed with caution. Just make sure that you're not going overboard and using too many or similar colors or fonts on backgrounds. Don't do yellow font on an orange background, things that are going to be really overwhelming visually or hard to see, and to use special effects sparingly. I often say for research presentations you may want to avoid some of these common ones like fire or maybe go easy on outer space effects. For any of you who use Prezi, which is a software that allows you to have people go through three-dimensional journeys zooming in and zooming out, be really careful with that.

I've definitely been to a couple of talks where people use that. For anyone who's slightly prone to motion sickness, it can really make you dizzy if you overdo it. Just use it sparingly but when you really want to give your audience a visual break a moment of levity or have a little fun. I just want to make a note on the how of the after. The you're done with your talk, you have an immense rush of endorphins and you feel relieved. It's not quite over yet. I'll talk about the immediate after period of Q&A question and answer and closure or following up or wrapping up your talk.

With respect to the Q&A, I can't emphasize enough that question and answer of Q&A matters. Arguably, it matters as much as the talk itself. You're not over yet when the talk is over. There's this period that can be short or long depending on if you're giving a colloquium talk or a brief data blitz talk as to whether you'll be answering a lot of questions. Inevitably there will always be at least one question. How you go about responding to those shows people who you are and how you think. The first thing I always try to remember is that all questions are in parentheses, with the intention of parentheses being good questions.

In the sense of good, questions are showing that your audience is engaged. They're not meeting you with deadpan silence so they're engaged. They're also good insofar as they're giving you an opportunity to interact with your audience and think about questions you might not have encountered. They're also an opportunity to show people how you think naturally. Your talks are things you practice, you rehearsed, you've gotten feedback. Now you get to just talk with your audience and show them how you think. That can, however, be very nerve-wracking especially for those of us who like to have everything under control and everything practiced and rehearsed.

I always try to keep in mind that you don't need to know all the answers. The second point, be honest, if you don't know the answer, that is just okay and fine but the way you want to address that is not to simply say, I don't know, but to be honest and say, I don't know, but that's a really interesting question and here's what it makes me wonder. Here's what I'm curious about when you ask that question. Being honest and not knowing an answer doesn't mean you still can't talk to your audience or even follow up with a question if you didn't understand what they were trying to get at.

Last but not least, be humble. Especially when I've seen job talks. Often, one of the things that's really ruled candidates out is those who had a great talk but at the end of the day in their Q&A appeared very arrogant. That gave the impression that they might not be collegial colleagues to work with. Remember to be humble, and that in science, we know less than we know. To always remember that we're doing our best, but we don't know all or everything by any means. Other things are to remember and acknowledge others, after the talk and during science is a collaborative discipline.

These are some of my treasured colleagues I've written articles with, who are also all human beings too. To remember to acknowledge them, when you're answering questions and even as you're wrapping up, I'll often put this at the very end of my talk. This is a slide I had from a recent talk from, we have a multi-site study we're fundraising for to try to study mental health in young adults in college before and during COVID at the end and I also do this at the beginning but wanted to acknowledge the people behind the project. Certainly, every talk we give has multitudes of people involved, not just ourselves. Do remember to acknowledge others.

Sometimes this is an example I've given when I've been presenting a paper, this is a paper of some of my colleagues at Boulder. Especially, it's important to highlight the faces and names of trainees on your projects, because your responsibility is to help also network and elevate their profile visibility as well. The piece I mentioned, there's the immediate follow-up and the wrapping up. Remember, when you can to try to follow up with your audience, often email follow-up is a good way to do it about questions and conversations.

Especially when it comes to job talks, or colloquium talks, if there was a question that they asked you during the Q&A and you just felt like you didn't answer fully the way you wanted or there's a piece you'd like to engage with them more follow up with them. Even if someone asked you a really good question made a good point, you can follow up with them, and thank them for their time and their feedback. Follow up in ways that feel sincere and authentic to you but it's definitely a way of closure and wrapping up a presentation to follow up with your audience. If you were on a symposium for a conference, follow up with your fellow presenters and really just have a nice closure for the experience.

I'll finally conclude before we have our Q&A here with just some resources of where you can learn more. These slides, as I mentioned, there's a PDF that you can have and upload, I'm happy to chat about it. You can also read more. There are so many resources out there. This is one that's a really beautiful example by Michael Alley, what he calls *The Craft of Scientific Presentations*. *Critical Steps to Succeed and Critical Errors to Avoid*. This one, I really love and encourage some of my lab to read it. It has not only how-to tips on putting a talk together, but importantly, tips on managing performance anxiety. I can't think of a single psychologist who goes into talks completely neutral.

I always say it's normative to have performance or anticipatory anxiety but it's finding ways to work with that so that we can have it but it doesn't get in the way of us giving the presentation we want to give. Managing anxiety is a huge piece of public speaking, and it has a really lovely chapter on that as well. I love this book, *Public Speaking for Psychologists*. There's also a terrific resource by Greg **[unintelligible 00:50:10]** a professor at the university of Pittsburgh, which I hyperlink below. He has a set of tips on how to give a conference poster presentation.

This is often a neglected piece I find when we talk about presentations, as I mentioned, is that elevator pitch you give people when they walk by your poster or in virtual conferences, show up on Zoom. These a really lovely, very simple PDF handout for trainees that I give all of my lab members into thinking about, what do you do once you get that poster together? How do you practice rehearsing a pitch for it? Just putting a thumbs up to these great resources where you can go to read more about how to craft presentations.

We learn by reading, but we also learn by observing. We're social animals and we learn a lot through social modeling and emulation of others. Watching more talks and observing what you like and what you don't like is going to be a critical step to helping you move forward. I always say to bring a notebook to talks you go to. If you're a student like a departmental talk, especially job talks, you should definitely go to any of those you can in or outside your area and just take notes on maybe it was a certain way they set up a slide or a certain way they answered a question, and just keep a log of like the greatest hits of the talks you've been to.

I give a few examples of some of my favorite colleagues who I think of as fantastic speakers. Dacher Keltner at UC Berkeley whenever he gave talks in my department, I always tried to attend them. He's one of the most compelling speakers I've seen. You can also look at his name. He has a quite a few public talks as well, but think about who are the people in your department that give good talks. If you don't know and you're a trainee, ask your mentor, like who can I go to watch give a talk, maybe it's another more senior graduate student, but watch talks within your department. This is how you're going to start learning how talks look and how to give them.

Also, think about conference talks. Another one of my favorite speakers is James Gross from Stanford. He studies and is the pioneer of emotion regulation, many of you know but whenever I try to go to conferences, such as The Society for Affective Science that he speaks at or APA or emotion pre-conference at SPSV and I know James Gross is going to speak, I'll always go and attend. Conference talks are just a great opportunity when you can attend to hear a lot of talks in a condensed period of time, again using it as a way to learn about what they're talking about, but you can sometimes even just go to watch how they present their talk.

Finally, more and more in this growing era, we are finding psychologists joining the broader conversation on public talks and speaking to a broader audience. There are many good, high quality public talks out there. Some examples are TED Talks. Jennifer Everhart has a fantastic TED Talk. I couldn't emphasize it more in thinking about the psychological origins of some of our most profound and entrenched human biases. I could suggest many, but hers is just one example I would say is a fantastic topic, but also a wonderful example of how to give a talk.

Watch more locally at conferences. We all have these access to this thing called the internet where we have more opportunities to watch talks than ever before. Here are a few of my favorites, though, this was very hard to decide. I also love Lisa Feldman Barrett's TED Talk as well on emotions. If you're looking for more examples of talks, feel free, I'll put my email at the end, and you can reach out to me, I'm happy to always give examples. Importantly, ask more. By that, ask your colleagues, talk to people about what do they think is a good talk. The more people you can ask and sample, the greater representation you'll have of different data points of different minds in the room that might attend your talk.

Along those lines, the other day I crowdsourced on what we call science Twitter asking people to share what they think are good elements of talks, and some were shared recently. I found some fantastic, recent in the past years, pieces of advice. Erin Fisher, professor at Berkeley, Dave Myers, Mike Kraus and others shared some of their own tips and people in our field are more and more so pro socially engaged with finding ways to talk and share resources and tips, especially the trainees, and thinking about what are different people's preferences, philosophies, and ways to give good talks.

There's no shortage of advice and ask your close colleagues, your mentor, your peers and sometimes even the science world of social media has a surprising amount of advice and free guidance on these sorts of professional development topics as well. With that, after having given you all these tips, I always feel I must say do as I say, not as I do, I'm certain happy to share tips and tricks. I'm not perfect myself, but we always have our standards we strive to and that we try to keep in mind when we're giving talks ourselves.

With that, I just want to thank all of you for coming today. I always want to thank my trainees in my lab, whether we are in person or remote as the world has doing important work, we try to study emotion and mental health. As I mentioned, we're doing some fundraising now on emotion and mental health in college. I want to thank them because they're often the main source of inspiration behind pretty much every talk I give. Thank you for being here today, and I am happy and look forward to answering any questions you might have.

**Peggy:** Thank you, Dr. Gruber, for that very insightful presentation. We have a lot of questions. Only just a few minutes left in our hour. We might go over a few minutes, so we can sneak a few extra in. Let's get right to them. There were a lot of people who had questions about nerves and managing nerves. Especially at the beginning of a research talk. Do you have any tips or recommendations?

**Dr. Gruber:** That is a fantastic question. As we alluded to at the very end, I think it's one of the pieces most people struggle with the most, sometimes even more than putting slides together as to how do I manage my emotional responses? A couple of thoughts about this. First, I just can't emphasize enough, like normalizing performance anxiety in our field that studies mental health.

By and large, we don't talk about it enough that most of us get to are nervous giving talks. Not that nervousness ever necessarily goes away, but we find different ways to experience it and approach it. One piece of advice that I was given and I'll give a few is to the day before or the day off not think about your talk and do something distracting, whether it's like the night before taking a relaxing bath or having a good meal, or if you're giving your talk in the afternoon that morning just going out for a run, getting coffee with a friend, like taking your mind off it, giving yourself a bit of a mental break from the anticipation, I think can be very useful.

The second piece of advice. This comes from research by Wendy Berry Mendez at UCSF who does this beautiful science on emotion regulation along with her lab members is to recognize that if your heart is racing and if your palms are sweating, that's your body signaling that something important is happening. If you didn't care about the talk, if the topic wasn't relevant to you, you wouldn't be having that kind of bodily response

So to what we call reappraise and understand that's your body's way of telling you something is important and that is normal and important. Again, if we didn't have some little rush of that fight or flight sympathetic nervous system happening, our talk probably wouldn't be as good if we were too lackadaisical and too disengaged. Just remember that physiological sensation doesn't have to be a sign of threat, it can be a sign of your body telling you something matters.

Last but not least, Mike Kraus mentioned this on Twitter, but it's okay to seek support if your anxiety is so significant that it makes giving a talk feel impossible. I can't tell you the number of people I know who have taken beta blockers or benzodiazepines as they were getting accustomed to talks.

There is no stigma in that. I think we all find ways to cope. Some of those strategies are different for different people. To not ignore your anxiety or judge yourself, but to seek support and resources if you need it. Those would be some of my pieces of advice. I've heard people talk about cracking jokes at the beginning of the talk like if that works for you, it's certainly great because we know what laughter does.

It's really fascinating laughter itself, just the act of like the pattern of inhalation and explanation that comes with laughter is what it happens to do is actually slow down our heart rate. Coincidentally, so often people will crack jokes at the beginning of the talk, not necessarily knowing they're actually engaging in self-regulation of their body, and it's fight or flight response. If it works for you, a joke can actually go a long way at the beginning of the talk to easing you and soothing your body.

**Peggy:** Excellent. Thank you. Another question is storytelling may not be something that comes naturally to me. How can I get better at thinking about my research through storytelling?

**Dr. Gruber:** That's a great question. One of the ways that I often say we can get better at storytelling. One is to see obviously examples, as I mentioned, of some of the people I mentioned who give talks that have good stories to see examples. I think the second is to practice talking about your research to people who know nothing about it. To a partner, to friends, to relatives and try to explain to them why it matters. It's really challenging at the beginning, but you start to see how are the ways I can make a case for why what I do is important. I often think about with stories too, bringing in true experience. Not that you need to disclose unnecessarily, but sometimes part of the story can be your journey through the research.

In my field of clinical psychology often people will tell a story with permission and de-identified of a client that they worked with or a participant they observed who just had this profound thing they said or thing they observed. That really got them hooked on studying this topic. Giving the true story of why you're doing what you're doing often, incidentally will convey a story because it is your journey through your research and how you got to do what you did. That I think can also be a way above and beyond some of the strategies we talked about today ending with the problem and setting it up for a solution. In subsequent studies.

**Peggy:** Should I include my roadmap in my presentation slides much like you did today?

**Dr. Gruber:** Yes. That's one I can answer simply. Yes, I would do just that, put it at the beginning, and as you go through each point or stop in your roadmap, bring it up again and again, so people know the structure of where you're going and know how you're progressing through the talk.

**Peggy:** Excellent. This is a practical thing. Should I include handouts and copies of my slides for the audience?

**Dr. Gruber:** That depends on context I think it never hurts. If you can on talks today provide a PDF, or have print out. It's not common to see printouts of slides and talks I wouldn't say it's ordinary at all, but if it works and if you can, I think no one will object. People love having them there to take notes on, or sometimes after a talk, especially for posters taking them away so they can refer back to it. If it works for you and it's not going to run your printer ink-out, I think it can be a nice touch and you can print it in ways that you have multiple slides on a single page to save paper.

**Peggy:** That's a good idea. For those who have been speaking for a very long time, do you have any advice for finding a new spark or just revamping the research talk?

**Dr. Gruber:** Yes. That's a great question. Sometimes I find like just letting go of slide examples and templates you've been using for years and starting from scratch. Maybe switching to a new software, if you've been using PowerPoint for a decade or more try keynote, just try to completely start from scratch because then you might find yourself relying less on the easy habitual, familiar slide route you've done and you're forcing yourself to start a new. I think I've definitely had colleagues who just tried keynote for the first time or what have you, as a way to revamp how they even assemble slides.

**Peggy:** Well, unfortunately, we are out of time for Q&A, and yes. Thank you so much Dr. Gruber for joining us today and your presentation was fantastic. There was a lot of good information. We had a lot of people asking for the downloads and of the slides and be assured, everyone. We will send those out to you if you weren't able to download them today. Thank you all for your participation, for your questions. Sorry, we couldn't get to them all. A recording of this presentation as I said, will be emailed to everyone in two weeks. It will include the download of the slides and a transcript. As soon as the webinar has ended, a short survey will appear on your screen. We hope you'll take a few minutes to complete the survey and give us feedback on how we did and how we can improve. Please be on the lookout for more supercharged webinars in 2022. We thank you for your attention and hope you have a great holiday.

**[01:04:51] [END OF AUDIO]**